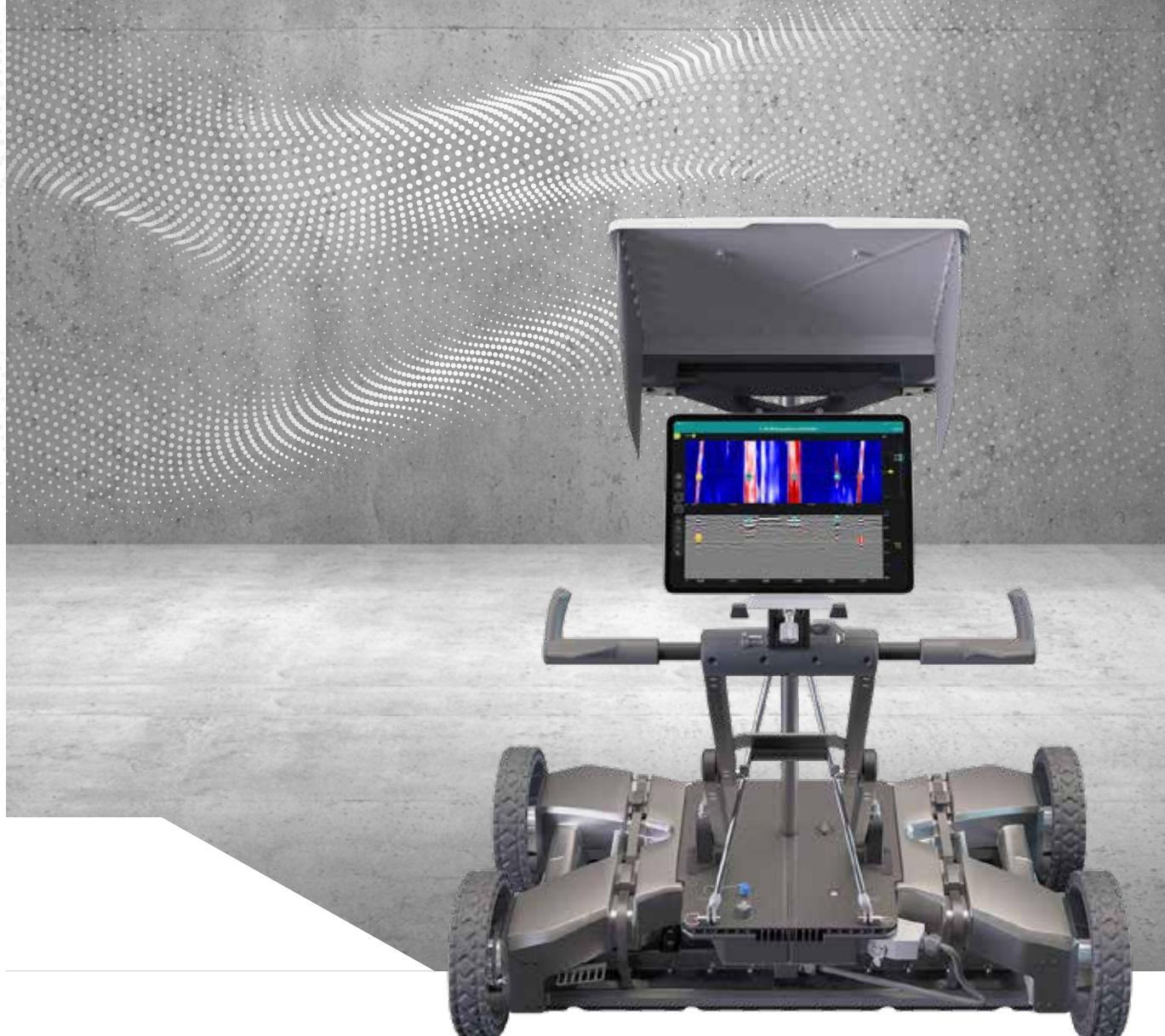




## Das effizienteste Mehrkanal-GPR-System mit 3D-Visualisierung in Echtzeit



**GS 9000  
BODENRADAR**

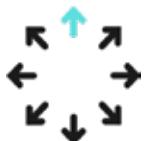


**ERMÖGLICHE DIR EINEN BLICK  
IN DEN BODEN**

# GS9000

## Mehrkanal-Bodenradar

Modulare Sensoren. Höchste Datenqualität.  
Leistungsstarke 3D-Software. 100% Echtzeit.



### Vielseitig

Zwei austauschbare  
Mehrkanal-GPR-Module  
zur Abdeckung einer Vielzahl  
von Anwendungen.



### Effizient

Einfach einzurichten und  
zu bedienen, mit fließender  
Datenvizualisierung  
zur Vermeidung von  
Interpretationsfehlern  
vor Ort.



### Präzise

Nahtlose Integration  
von GPR und  
GNSS-Technologie für  
genau referenzierte  
Daten mit hoher Dichte.

# ÜBERSICHT



## Technology

Multichannel Stepped Frequency Radar



### Outstanding data quality

Live signal modulation across a wide bandwidth and multiple channels, resulting in perfectly balanced radar imaging.

Compatible GPR array modules

#### **GX1**

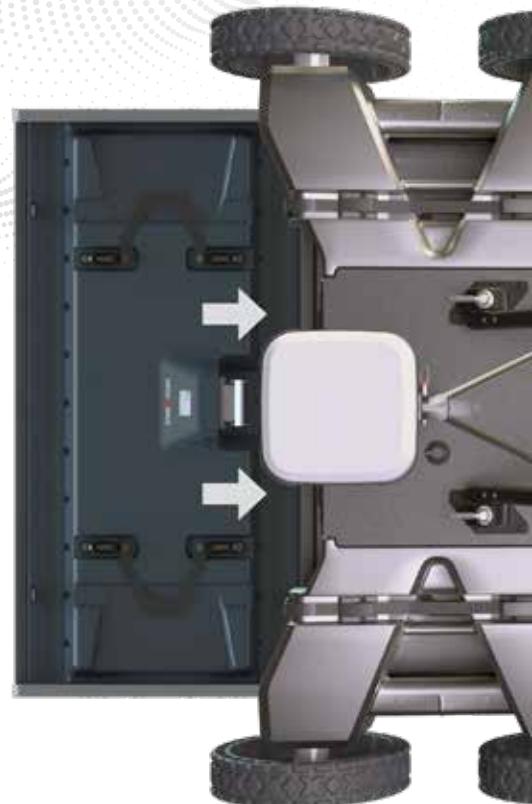
High frequency range

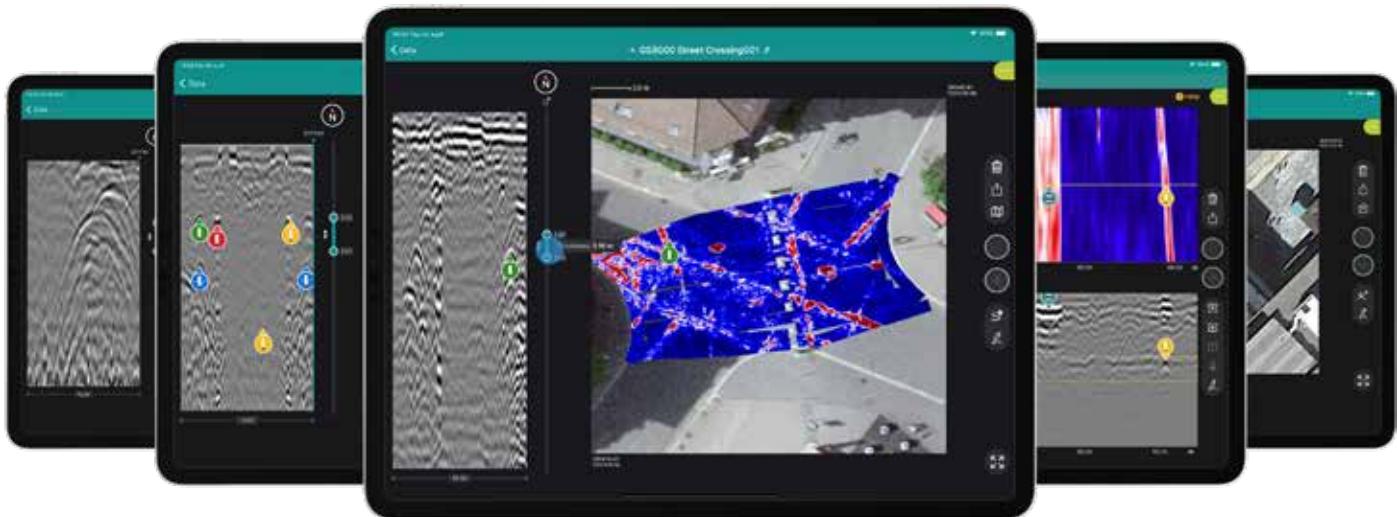
- For structural applications
- Ultra-high resolution in first meter
- Frequency range: 500-3,000 MHz
- 35 + 15 channels, dual polarization
- 2.5cm (1 in) channel spacing

#### **GX2**

Low frequency range

- For utilities and geophysics
- Optimal detection in first 2-3 m
- Frequency range: 30-750 MHz
- 83 cm wide swath - 11 channels
- 7.5cm (3 in) channel spacing





# Software

**FIELD APP** Live georeferenced data visualization



## Live tomography

See buried objects forming on a map as you walk over them. No waiting time, all georeferenced.



## Intuitive data

Complex data presented in an understandable way. All needed tools to interpret and digitize the reality on site.



## Simple gestures

Interact with the user interface with simple, familiar gestures. Full control at your fingertips.



## Instant sharing

Get your field projects, reports and drawings to your colleagues and clients in just one click.

# Software

## POST-PROCESS



## Manage large projects

Merge multiple field jobs into one same project and see the big picture on a map.

## Increase accuracy

Easily apply advanced filters to raw data, and correct topographically for the highest accuracy.

## Get more insights

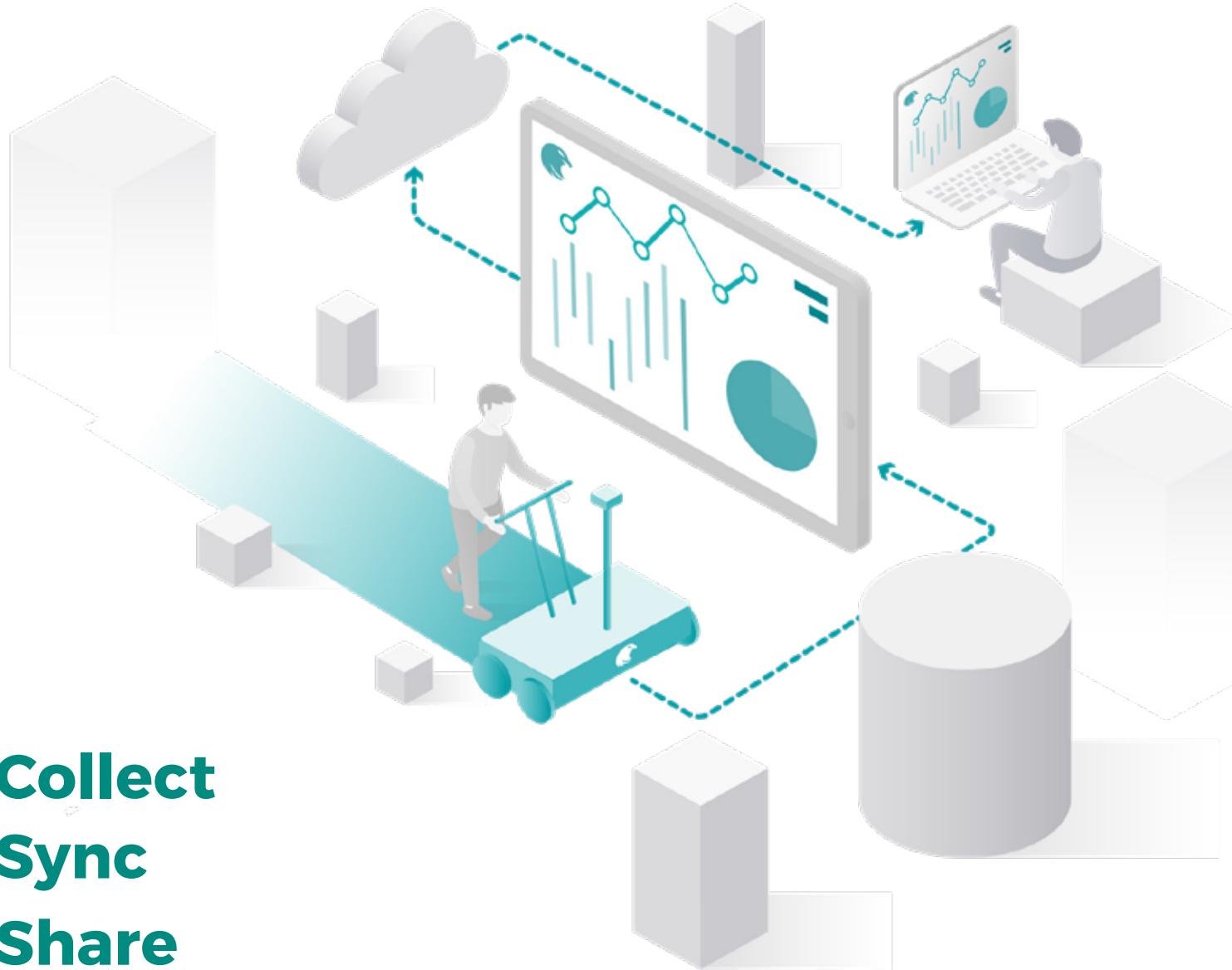
Organize how to see the data with advanced 2D and 3D visualization modes to not miss any detail.

## Automated mapping

Ultra-fast algorithms to analyse raw data and create application-specific diagnostic Maps.

# All powered by Workspace

Cloud-connected workflow & service



## Collect Sync Share



### Streamlined workflow

Field data management, post-processing software and sharing options integrated in the same platform



### Integrated services

Data conversion tools and services like real-time GNSS corrections running online for maximal convenience



### Safe data

Get all field data synchronized to your personal cloud space automatically

# Applications

## GS9000

### SUE & Utility mapping

Detection of buried pipes, ducts and cables for safe digging or utility mapping purposes



### Road & Bridge inspection

Structural diagnostics and monitoring of bridges, concrete structures and roadways



### Geophysical surveys

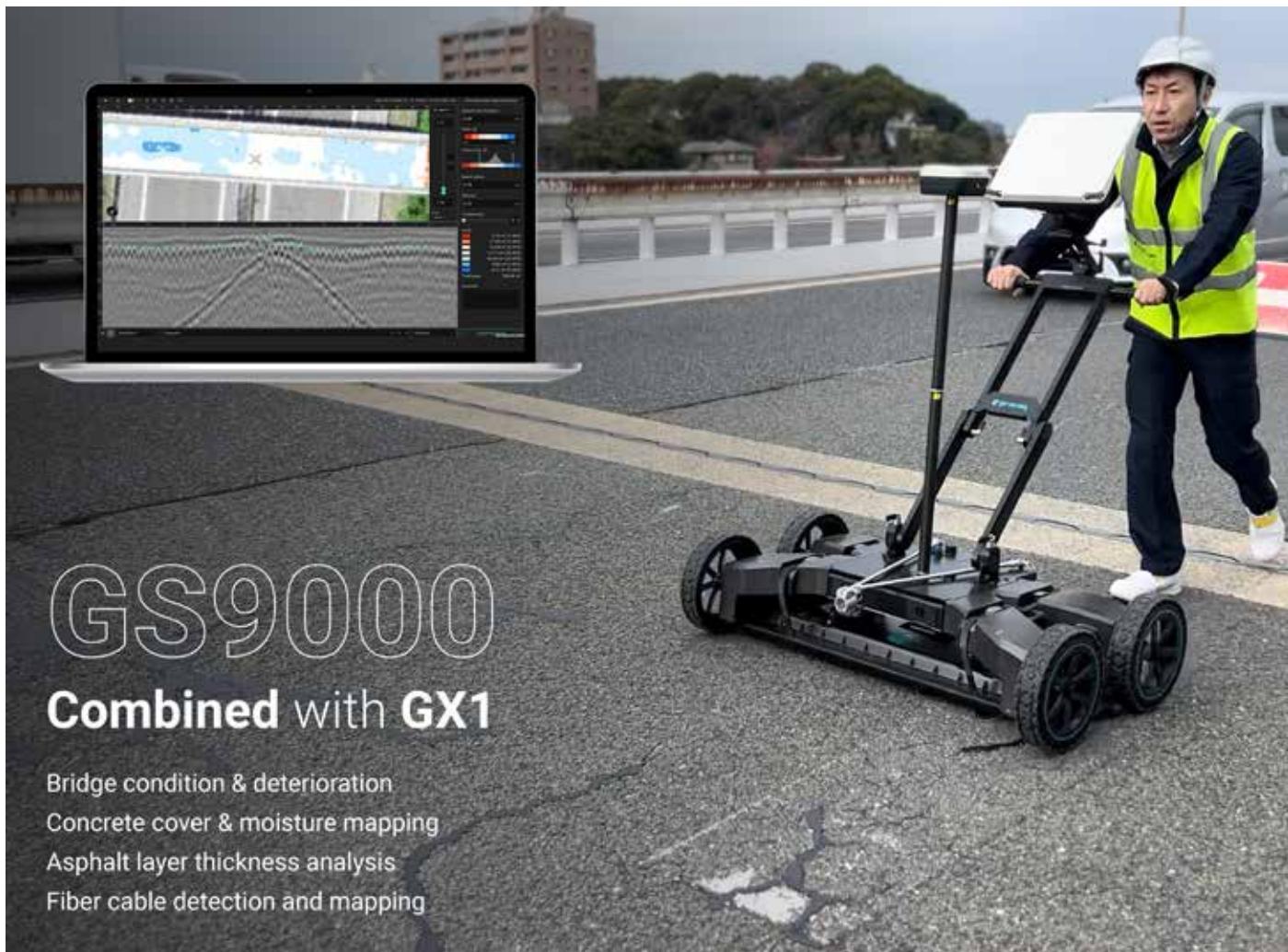
Geotechnical projects and detection of geological anomalies and Hazards



### Archaeology & Forensic explorations

Prospection of archaeological sites, detection of unexploded elements





# GS9000

## Combined with GX1

Bridge condition & deterioration  
Concrete cover & moisture mapping  
Asphalt layer thickness analysis  
Fiber cable detection and mapping

# Hardware Spec

RC CE UK EAC



GS9000

Dimensions

**45kg**

72 x 118 x 44 cms

Up to  
**27,500**  
scans/m

5,000  
points / linear m

GX1 array  
module

**500-  
3000**  
MHz

35 + 15 channels  
2.5 cm spacing

GX2 array  
module

**30-  
750**  
MHz



11 channels  
7.5 cm spacing

Powered by



45W Power bank

Wireless



optional USB-C

Real-time 3D accuracy



SSR included

NTRIP compatible

**1-5 cm**

Total station compatible



# GS9000

## Combined with GX2

Subsurface utility mapping  
Underground cavity detection  
Archaeological site prospections  
Unexploded ordnance surveys

# Software Spec



## Field Software

### Field methodology

Free Path  
Superline

### Live Image Processing

Time Slice View (geo-referenced)  
Hilbert migration  
Depth range adjustment  
Dynamic Gain / Manual Gain  
Sensitivity filter  
Background removal filter  
Noise cancellation filter  
Frequency filter

### Live Display Options

Satellite imagery  
GNSS trajectory  
CAD object layers  
Spectral / seismic color palettes

### On-site annotations

Tags  
Points of interest  
Photos  
Voice markers  
Markups  
Linework

### Field calibration options

Odometer calibration  
Velocity by hyperbola fitting  
Velocity for multiple layers

### Cloud services

Live data synchronization to Workspace<sup>1</sup>  
Permanent data storage  
Raw data export to SEG-Y  
Instant CAD / SHP / KML drawing generation  
Instant report generation  
Share via url

### Coordinate Systems

EPSG global database  
Local grid models  
Geoid models

### Languages

English, Spanish, French, German, Italian,  
Chinese, Japanese, Korean

### Display unit

Any iPad Pro® with M2 chip<sup>2</sup>  
Screen resolution: up to 2732 x 2048 pixels  
Storage capacity: up to 2 TB

## Field Software

### Web version

Running on Workspace personal cloud space

### Special modules

3D multichannel  
Utility Mapping  
Bridge inspection

### Local version

PC running Windows 10 or superior<sup>3</sup>

# Zubehör



39367260

GX1 GPR-Array-Modul (500-3000 MHz) für die Kartierung von Straßen und Brücken



39367250

GX2 GPR-Array-Modul (30-750 MHz) für Versorgungs- und geophysikalische Kartierung



39360277

Kufenplatte für GX1-Array-Modul



39360281

Kufenplatte für GX2-Array-Modul



39350660

Stabilisiert Ihren GNSS-Stab in unebenem Gelände.  
Im Lieferumfang der GS9000 Pro Hardware-Variante enthalten.



39350710

Enthalten in der GS9000 Pro Hardware-Variante.



39350404

Passt zu jedem iPad Pro und Sonnen- und Regenschutz.  
In allen Hardware-Varianten enthalten.



39350060

Für einen Regenschirm, der den Benutzer vor Sonne und Regen schützt.



39350480

Schützt das iPad vor Sonne und Regen. Im Lieferumfang der GS9000 Pro Hardware-Variante enthalten.



39350486

Ermöglicht die Kompatibilität des Tablet-Halters mit diversem Zubehör und Taschen. In allen Hardwarevarianten enthalten.

# All dimensions of subsurface mapping

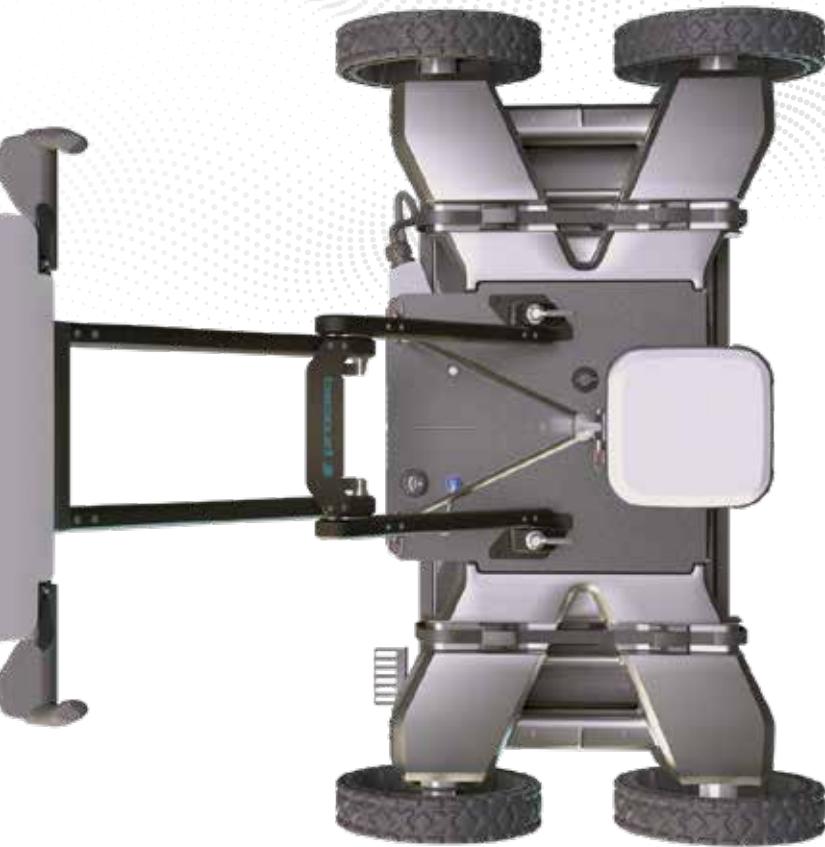


**GM8000**

Multichannel  
mobile GPR

**GS9000**

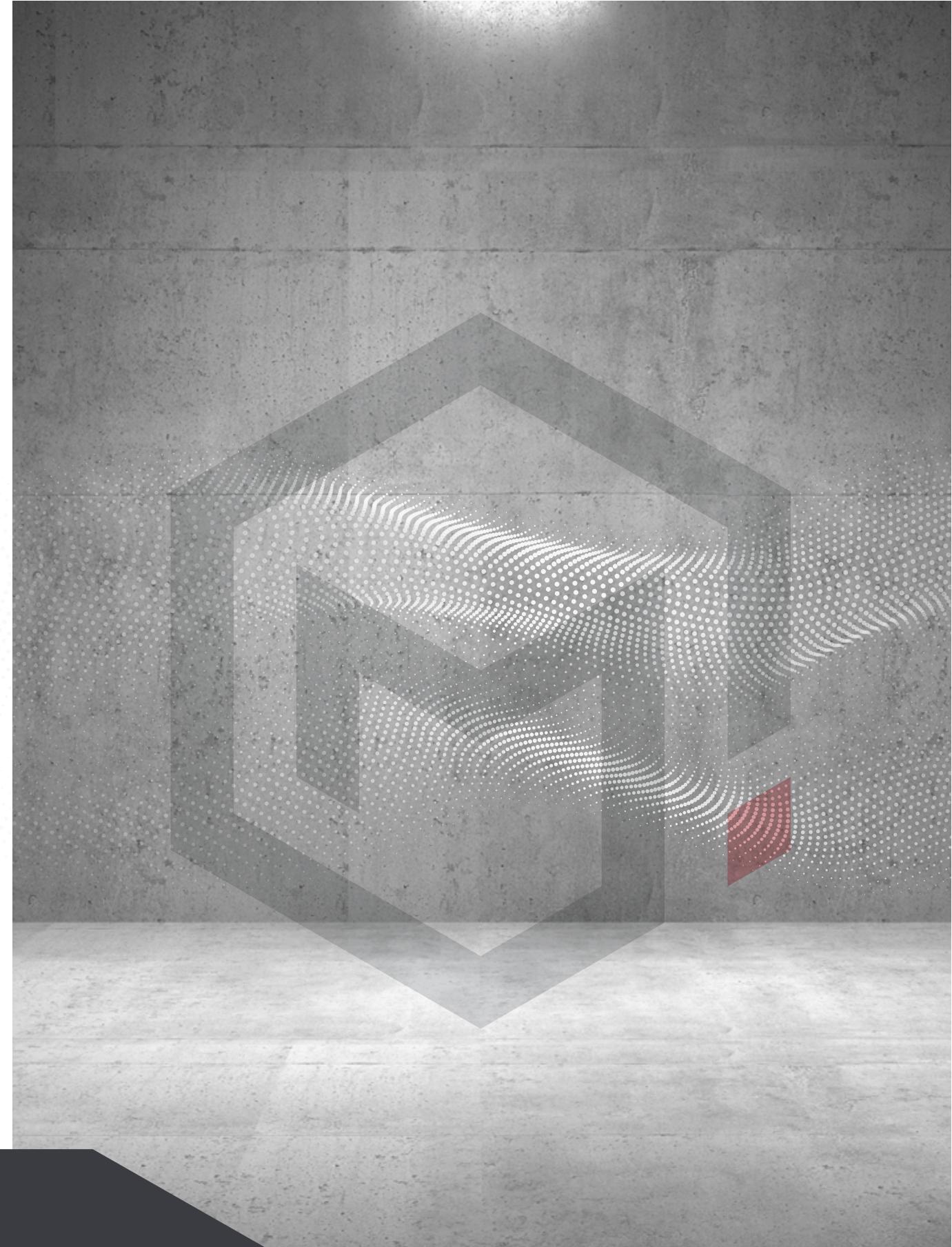
Multichannel  
GPR cart



**GS8000**

Single-channel  
GPR cart





Als Komplettanbieter für  
3D-Messlösungen für  
Planung und Produktion  
beraten wir Sie gerne.  
Wir freuen uns auf Ihre  
Anfrage.

A-4920 Schildorn  
Gewerbepark 1  
Tel.: +43 7754 36 921  
[office@metrosol.at](mailto:office@metrosol.at)  
[www.metrosol.at](http://www.metrosol.at)

 **metrosol**  
3D-Messlösungen und mehr