



النظم المكانية
GeoSystems

Precision Mapping. Trusted Data. Smarter Decisions.

www.geosystems.tech

GeoSystems at a Glance

1

Years of Experience

20+

2

Survey Equipment

50+

3

Fleet Vehicles

10+

Headquarters

Tabuk, Saudi Arabia

Operations

Kingdom-wide & Middle East

Certifications

ISO 9001 · 14001 · 45001 · 17123

Approved Vendor

NEOM · Red Sea Global · Qiddiya

A trusted geospatial partner for Saudi Arabia's most ambitious infrastructure and giga-projects.

Leading Geospatial Solutions Provider

GeoSystems is a premier provider of advanced geospatial and surveying solutions in Saudi Arabia and the Middle East.

We specialize in high-precision land surveys, GNSS positioning, GIS development, BIM services, drone mapping, 3D laser scanning, and subsurface utility detection.

Our Reach:

- 20+ years serving the Saudi engineering and construction market
- Operations across KSA, Egypt, and the wider Middle East region

Our Clients:

- Government entities and giga-project developers
- International consultancies and engineering firms
- Major infrastructure and construction contractors

Our Commitment:

We deliver accurate geospatial data that supports informed decision-making—from feasibility studies through design, construction, and facility management



Mission & Vision



Our Mission

Our mission is to deliver precise, technology-driven geospatial solutions that empower clients to plan, design, and build with confidence—ensuring accuracy, efficiency, and safety across every project phase.



Our Vision

Our vision is to be the Kingdom's most trusted geospatial partner, setting the benchmark for technical excellence and innovation in surveying, mapping, and spatial intelligence services.

Our Values

The Principles That Guide Us

Precision

Accuracy in every measurement we take



Integrity

Transparent, honest, and reliable partnerships



Innovation

Embracing cutting-edge technologies



Safety

Unwavering commitment to HSE standards



Excellence

Consistently exceeding client expectations

Certifications & Accreditations

Quality You Can Trust

ISO Certifications:

ISO 9001

Quality Management Systems

ISO 14001

Environmental Management Systems

ISO 45001

Occupational Health & Safety Management

ISO 17123

Surveying Instrument Calibration & Testing

Approved Vendor Status:



NEOM

Certified Geospatial Services Provider



Red Sea Global

Approved Surveying Contractor



Qiddiya Investment Company

Registered Vendor

Standards Compliance:

→ International geodetic and surveying standards

→ Local MOMRA and GEOSA regulations

→ BIM standards including ISO 19650 series

Service Portfolio Overview

Comprehensive Geospatial Solutions

End-to-end services covering the full project lifecycle

Topographic Surveys

Land mapping, corridor surveys,
DTM/contours

Survey Crews Rental

Flexible staffing and equipment solutions

Monitoring & Inspection

Deformation monitoring, progress tracking

Subsurface Utility Detection

GPR surveys, underground utility mapping



3D Laser Scanning & Scan-to-BIM

As-built documentation, BIM conversion

Drone Mapping & Photogrammetry

Aerial surveys, orthophotos, 3D models

Mobile Mapping Systems

Road corridors, infrastructure mapping

GIS & Geospatial Solutions

Spatial analysis, geodatabase development

One provider. Complete geospatial capability. No subcontractors required.



Topographic Surveys

High-Precision Land Surveys

What We Deliver:

DTM & DSM Models

Client-Specified Contour Mapping

Spot Elevation Data

Boundary & Cadastral Mapping

Infrastructure Corridor Surveys

Applications:

Road & Transportation Projects

Real Estate & Urban Development

Municipal Infrastructure Planning

Construction Site Preparation

Key Capabilities:

Horizontal Accuracy

±2 cm or better

Vertical Accuracy

±3 cm or better

Coordinate Systems

KSA-GRF17, UTM, local grids

Output Formats

Civil 3D, GIS-ready, CAD layers

3D Laser Scanning & Scan-to-BIM

Reality Capture & Intelligent Modeling

What We Deliver:

- High-density point cloud capture (2M+ points/second)
- As-built documentation for existing structures
- Point cloud to BIM conversion (LOD 100–500)
- Clash detection and construction coordination support

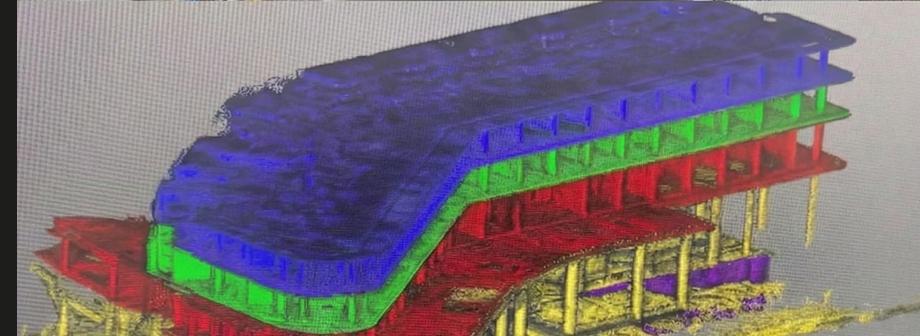
Applications:

- Building facade documentation
- Interior space surveys
- Industrial plant as-built modeling
- Heritage structure preservation
- Infrastructure asset management

Scan-to-BIM Expertise:

Element	Capability
Architectural	Walls, doors, windows, ceilings, floors
Structural	Columns, beams, slabs, foundations
MEP	Visible pipes, ducts, conduits, equipment
Facades	Curtain wall systems, cladding details

Standards: ISO 19650 · buildingSMART protocols





Drone Mapping & Photogrammetry

Aerial Intelligence for Large-Scale Projects

What We Deliver:

- High-resolution orthophoto mosaics
- Digital Surface Models (DSM) and terrain models
- 3D mesh models and textured surfaces
- Volumetric calculations for stockpiles and earthworks

Applications:

- Large-area topographic mapping
- Construction progress monitoring
- Quarry and mining volume calculations
- Environmental impact assessments

Technology Deployed:

Platform	Type	Accuracy
Wingtra One GEN2	Fixed-wing VTOL	Sub-3 cm PPK/RTK
DJI Matrice 300 RTK	Multi-rotor	Sub-3 cm RTK

Key Specs:

- GSD: 1.5–3 cm
- Coverage: Up to 200 hectares/day
- GACA-licensed operations

Mobile Mapping Systems

High-Speed Corridor Data Collection

What We Deliver:

- 3D point cloud capture at highway speeds
- 360° panoramic imagery with precise positioning
- Road asset inventory and feature extraction
- Pavement condition documentation
- Right-of-way (ROW) mapping

Applications:

- Road corridor surveys
- Highway asset management
- Urban street mapping
- Railway infrastructure documentation

Productivity Advantage:

Method	Daily Coverage	Accuracy
Traditional Survey	1-2 km	±2 cm
Mobile Mapping	50-100 km	±3 cm

50-100x faster than conventional surveys · 40%+ cost reduction

Technology Deployed:

System	Specifications
GreenValley LiMobile M2	Dual LiDAR sensors + panoramic camera
Positioning	Integrated GNSS/IMU/SLAM
Relative Accuracy	≤3 cm





GIS & Geospatial Solutions

Spatial Intelligence for Smarter Decisions

What We Deliver:

- Geodatabase design and development
- Spatial analysis and modeling
- CAD-to-GIS and GIS-to-BIM conversion
- Web-based mapping platforms
- Custom scripting and data transformation

Applications:

- Municipal planning and zoning
- Utility network management
- Environmental monitoring
- Smart city digital twin frameworks

Technical Capabilities:

Capability	Tools/Platforms
Enterprise GIS	ArcGIS Pro, ArcGIS Online
Open Source GIS	QGIS, PostGIS
Data Transformation	FME, Python scripting
Web Services	WMS, WFS, REST APIs

Subsurface Utility Detection

See What's Beneath the Surface



What We Deliver:

- Ground Penetrating Radar (GPR) surveys
- Electromagnetic Locator (EML) utility tracing
- Underground utility mapping to 5m depth
- Risk assessment for excavation planning



Applications:

- Pre-construction utility clearance
- Road and sidewalk design studies
- Excavation risk mitigation
- Utility relocation planning

Technology Deployed:

Equipment	Capability
GSSI 350 HS	HyperStacking™ technology
LineTrac Accessories	Metallic utility tracing
Detection Depth	Up to 5 meters

Value Proposition:

- Avoid costly utility strikes
- Reduce project delays
- Enhance construction safety





Monitoring & Inspection Services

Precision Monitoring for Critical Assets

What We Deliver:

- Structural deformation monitoring
- Construction progress tracking
- Comparative point cloud analysis
- Settlement and movement detection

Applications:

- Dams and reservoirs
- Bridges and overpasses
- High-rise buildings
- Deep excavations
- Tunnel construction

Monitoring Methods:

Method	Application
Precise GNSS Networks	Long-term settlement monitoring
Automated Total Stations	Real-time structural movement
Periodic Laser Scanning	Comparative deformation analysis

Accuracy: Sub-millimeter displacement detection



Survey Crews Rental

Flexible Staffing Solutions

What We Offer:

- Licensed professional surveyors
- Equipment operators and field technicians
- Complete survey crews with mobilized equipment
- Specialized resources for specific technologies

Available Resources:

Resource Type	Expertise
GNSS Surveyors	Static, RTK, network adjustments
Total Station Operators	Topographic, construction layout
Laser Scanning Technicians	Terrestrial and mobile scanning
Drone Pilots	GACA-licensed UAV operators
CAD/GIS Technicians	Data processing and drafting

Engagement Models:

Model	Duration
Short-term	Days to weeks
Long-term	Months to years
Project-based	Per deliverable

Scale your team on demand · No recruitment overhead

In-House Equipment Fleet

Advanced Technology. Complete Ownership.



GNSS Systems

- 30+ Leica, Trimble, Sokkia receivers
- Static, RTK, PPK capabilities
- Centimeter-level accuracy



Total Stations

- Leica TS06 & TS16 Series
- 1" angular accuracy
- Reflectorless range to 500m



Terrestrial Laser Scanners

- Leica RTC360, BLK360
- FARO FocusS 70, Focus Premium
- Ranges up to 200m



Drones/UAVs

- DJI Phantom 4 RTK, Matrice series
- GACA-licensed operations
- High-resolution aerial data



Mobile Mapping Systems (MMS)

- Vehicle-mounted LiDAR systems
- Efficient corridor mapping
- Rapid large-scale data capture



Ground Penetrating Radar (GPR)

- Subsurface utility detection
- Locate pipes, cables, and voids
- Non-destructive investigation



Levels & Accessories

- Digital levels
- Prisms, tripods
- Precision leveling and control



Handheld Mapping Devices

- Trimble TDC600, Collector devices
- Field data collection tablets
- Rugged mobile computing



Survey Vehicles Fleet

- 4x4 field vehicles for site access
- Mobile mapping vehicles
- Equipment transport and crew mobility

Software Capabilities

Industry-Leading Processing Platforms



Survey Data Processing

Software	Function
Leica Infinity	GNSS/total station processing
Trimble Business Center	Integrated survey processing
Leica Cyclone	Point cloud registration
Autodesk ReCap Pro	Reality capture visualization



BIM & CAD Platforms

Software	Function
Autodesk Revit	Scan-to-BIM modeling
Autodesk Civil 3D	Civil engineering design
Autodesk Navisworks	Clash detection, coordination



GIS & Photogrammetry

Software	Function
ArcGIS Pro	Enterprise GIS
Agisoft Metashape	Photogrammetry
Pix4Dmapper	Drone mapping

Professional Team Structure

Skilled Experts Across Every Discipline

Field Operations

Role	Expertise
Licensed Surveyors	Topographic, cadastral, construction
Drone Pilots	GACA-licensed, mission planning
Scanning Technicians	Terrestrial and mobile operations
GPR Operators	Subsurface detection

Technical Processing

Role	Expertise
Point Cloud Technicians	Registration, alignment, QC
BIM Specialists	Scan-to-BIM, LOD 100-500
GIS Specialists	Geodatabase, spatial analysis
CAD Engineers	Survey plans, drawings

Team Certifications:



Registered with professional authorities



GACA-licensed drone operators



BIM-certified modelers (ISO 19650)



HSE-trained field personnel

Quality Assurance

Precision Built on Process

ISO Certifications:

Certification	Scope
ISO 9001	Quality Management
ISO 14001	Environmental Management
ISO 45001	Health & Safety
ISO 17123	Instrument Calibration

QA Process:

Phase	Activity
Pre-Survey	Equipment calibration, planning
Field Work	Real-time accuracy checks
Processing	Network adjustment, validation
Deliverables	Multi-tier review
Handover	Documentation, verification



Key Clients

Trusted by Industry Leaders

Giga-Projects & Government

- NEOM
- Red Sea Global
- Qiddiya
- The Diriyah Project

Governmental Sector

- MOMRA
- MOT
- NHC
- SEC



Engineering Consultancies

- SALFO Engineering
- Khatib & Alami
- Integrated Solutions
- Mind a Mend

Construction & Infrastructure

- SAPAC
- KOLIN Construction
- Switzel / BUJV
- CFHEC
- TechnoAlpin

Giga-Projects & Government

Enabling Saudi Arabia's Vision 2030

NEOM

Services: Topographic surveys, 3D scanning, airborne LiDAR, BIM conversion

Applications: Infrastructure planning, digital twin development

Status: Certified Geospatial Services Provider

Red Sea Global

Services: Topographic mapping, drone photogrammetry, as-built documentation

Applications: Luxury resort development, infrastructure corridors

Status: Approved Surveying Contractor

Qiddiya

Services: Laser scanning, Scan-to-BIM conversion

Applications: Entertainment venues, sports facilities

Status: Registered Vendor

Diriyah

Services: Road corridor surveys, CAD-to-BIM conversion

Applications: Heritage district restoration

Consultancies & Contractors

Long-Term Partnerships Built on Performance

Engineering Consultancies

Client	Services
SALFO Engineering	Topographic, utility mapping, mobile mapping, GIS
FalconViz	Topographic surveying, crew rental
Integrated Solutions	Scan-to-BIM, building documentation
Mind a Mend	3D scanning, LOD 400 BIM

Construction Contractors

Client	Services
SAPAC	CAD-to-BIM, transportation infrastructure
KOLIN Construction	Drone surveys, mountainous terrain
Switzel / BUJV	Laser scanning, facade documentation
TechnoAlpin	Airborne LiDAR, terrain modeling
CFHEC	Survey control, geodetic networks

Featured Projects

Proven Delivery Across Diverse Sectors

NEOM Trojena — Airborne LiDAR

Client: TechnoAlpin / NEOM

Scope: Aerial LiDAR for mountainous resort infrastructure

Deliverables: High-density point clouds, DTM, contours

Qiddiya WPH Building — Laser Scanning

Client: Switzel / BUJV

Scope: Building facade documentation

Deliverables: Registered point clouds, as-built CAD

K&A — Multi-City GPR Survey

Client: SALFO Engineering

Scope: Underground utility detection across 5 cities

Deliverables: Utility maps, depth profiles, CAD documentation

SALFO — Mobile Mapping

Client: SALFO Engineering

Scope: Parking and sidewalk design studies

Deliverables: Point clouds, feature extraction, Civil 3D

Competitive Differentiators

What Sets Us Apart



20+ Years Experience

- Deep Saudi market knowledge
- Kingdom-wide delivery capability
- Giga-project credentials



Complete In-House Capability

- No subcontractor reliance
- 30+ GNSS, scanners, drones, MMS
- Full quality control



Technology Leadership

- Latest Leica, FARO, Trimble equipment
- Mobile mapping: 50-100x faster
- Multi-platform drone fleet



Certified Quality

- ISO 9001, 14001, 45001, 17123
- Pre-qualified for major projects
- Rigorous QA/QC protocols

Client Value Proposition

The Value We Deliver

Speed

- Mobile mapping: 50-100x faster
- Drone coverage: 200 hectares/day
- Rapid mobilization: 15+ vehicles

Cost Efficiency

- 40%+ cost reduction on corridors
- No subcontractor markup
- Scalable crew rental

Accuracy

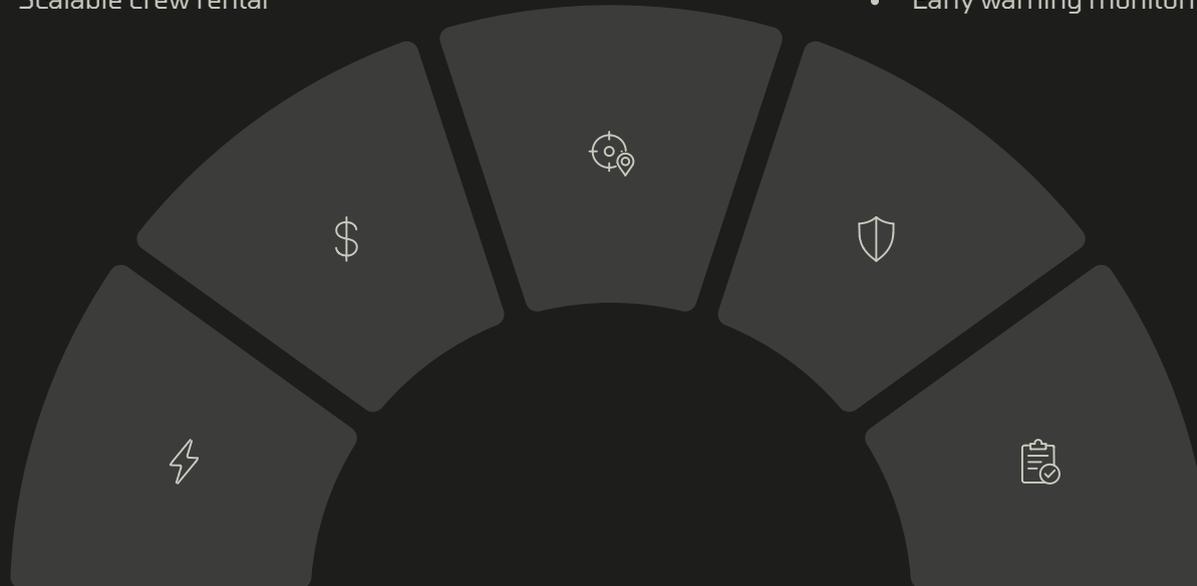
- Centimeter-level positioning
- Sub-millimeter deformation detection
- Calibrated instruments (ISO 17123)

Risk Reduction

- GPR utility detection
- As-built documentation
- Early warning monitoring

Compliance

- ISO-certified operations
- MOMRA/GEOSA standards
- ISO 19650 BIM standards



Contact Us

Let's Build Something Great Together

GeoSystems

النظم المكانية

Address

Al Shifaa District, Tabuk
Sharma Road, Tabuk City
47919, Saudi Arabia

Phone

0553977190

Email

info@geosystems.tech

Website

www.geosystems.tech

Our Services:

Topographic Surveys · 3D Laser Scanning · Scan-to-BIM · Drone Mapping ·
Mobile Mapping · GIS Solutions · GPR Surveys · Monitoring · Crew Rental

Why Partner With Us?

- ✓ 20+ years Saudi market experience
- ✓ Certified vendor: NEOM, Red Sea Global, Qiddiya
- ✓ ISO 9001, 14001, 45001, 17123 certified
- ✓ Complete in-house capability
- ✓ Kingdom-wide coverage

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