




# CORPORATE BROCHURE

UNLOCK YOUR MOBILITY



 [www.satlab.com.se](http://www.satlab.com.se)  [info@satlab.com.se](mailto:info@satlab.com.se)

 GEOSOLUTION | GÖTEBORG AB  
Jarnbrots Prastvag 2  
SE-42147 - Vastra Frolunda  
Gothenburg, Sweden





In today's ever-changing world of emerging technologies, we have to harness our tools to keep up with trends that are impacting the geospatial landscape.

The future of mobility shapes businesses in creating a more robust model which increases productivity, efficiency, and effectiveness.

The paradigm of mobility shifting in IoT ultimately plays a role in how we work and interact. With change, being the only constant in this world, SatLab Geosolutions believes that research and development is crucial in achieving technological innovation.

SatLab Geosolutions AB promises to improve our user operations through our center of Science and Technology to bring you the most reliable solutions essential for enabling technology for all verticals.

## MOBILITY COUNTS

HIGH MOBILITY HELPS US  
EXPAND HORIZONTALLY AND DIG VERTICALLY  
TO KEEP US AHEAD OF COMPETITORS



# CONTENTS

## ● MOBILITY COUNTS

SatLab at a Glance .....	02
Offices and Divisions .....	02

## ● UNLOCK YOUR MOBILITY

### GNSS RTK

Eyr .....	04
Freyja .....	05
SL900 .....	06
SL800 .....	06
SL700 .....	06
TR7 .....	07
SHC55 .....	10
Satsurv .....	11
SGS 2.0 .....	12

### GIS

TBA .....	13
-----------	----

### Optical

SLT2 .....	14
SLT10 .....	15
TTS2 .....	16

### CORS

SLX-1 .....	16
-------------	----

### Marine and Water Resource

Njord .....	17
HydroBoat 990 .....	17
ES224 .....	18
HydroScan 1400/4900 .....	19
HydroFlow 600/1200 .....	20

### 3D Handheld LiDAR Scanner

Cygnus .....	21
--------------	----

## ● MOBILITY BOOSTER

## SatLab at a Glance

SatLab Geosolutions is a Swedish based satellite positioning solutions company, which was founded by a group of pioneering engineers with more than 40 years of experience in the GNSS industry.

Our research and development team constantly extend the boundaries by using Swedish Science & Technology to bring about innovation and provides unique hardware/software and integrated solutions with an aim to increase productivity on-site for our professional users, while maintaining user satisfaction by enhancing and simplifying our user interface for more intuitive user experience.

### Offices and Division



14 Offices / Service Centers

2 R&D CENTERS






# UNLOCK YOUR MOBILITY

GNSS • GIS • Optical • CORS • Marine and Water Resource  
3D Handheld LiDAR Scanner

# Eyr

## New Dual-Camera GNSS RTK with Image Positioning Technology

With the functions of live-view stakeout and image survey, the newly upgraded IMU and next-generation integrated SOC platform are sure to overcome the objective limitations of the work.

-  HD Dual Cameras
-  Upgraded IMU for Automatic Installation
-  Intelligent Software
-  Abundant Industry Data Applications
-  5.5" Large Screen Controller SHC55
-  Built-in Radio
-  Multi-Constellation Tracking
-  Hi-Fix
-  Long Battery Life (over 12 Hours in Rover Mode)











# Freyja

## The Compact RTK with Advanced IMU Sensor

Freyja GNSS RTK can perfectly handle the situations encountered in all kinds of surveying work, minimizing the burden from the physicality and extending the functionality of fieldwork.

### Key Features

-  Advanced RTK Engine
-  Built-in Radio
-  Tilt Compensator
-  Long Battery Life (> 12 hours)
-  Multi-Constellation Tracking
-  Web UI
-  NFC Module
-  Compatibility with third-party software



# GNSS RTK Receivers

## Agile and Precise Positioning

SL900 and SL800 are powered by advanced GNSS engine. The SatLab GNSS receiver range offers precise positioning even in the most remote or challenging environments.



Multi-constellation tracking



NFC quick connection with your preferred device



Multiple controllers and field software compatibility



Smart system for auto-self-inspection



**SL900**  
High Precision Tilt Survey

**SL800**  
Compact and Portable



**SL700**  
More than Compact



※ PPP available such as TerraStar and Hi-RTP for SL900 and SL700

## TR7

### New High-Quality GNSS Receiver



#### Key Features



Hi-Fix



Tilt survey (optional)



OLED panel display & control



Quick connection



WebUI



Quick charge

#### Specifications

GNSS	
Signal Tracking	GPS: L1, L2, L5 GLONASS: L1, L2 BDS: B1, B2, B3 Galileo: E1, E5A, E5B QZSS: L1, L2, L5 SBAS: L1 IRNSS: L5
No. of Channels	800+
MEASUREMENT PERFORMANCE	
Initializing Time	Less than 10 Seconds
Real-time Kinematic	Hz 8mm+1ppm/15mm +1ppm RMS
Static and Fast Static	Hz 2.5mm+0.5ppm/V 5mm + 0.5ppm RMS
DGPS	Hz 0.25m+1ppm/V 0.5m + 1ppm RMS
Initialization Reliability	99.9%
Static Data Format	GNS and Rinex
Hi-Fix <sup>1</sup>	
Horizontal	RTK + 10 mm/minute RMS
Vertical	RTK + 20 mm/minute RMS
Tilt Survey (optional)	Electronic Bubble / tilt survey 2.0
Tilt Survey Performance	5cm accuracy in the inclination of 30°
COMMUNICATIONS	
Communication Ports	USB, TNC antenna port and Nano SIM card slot 4G LTE Bluetooth 4.0, Wi-Fi and NFC DC External power input LED indicator panels

Internal UHF Transceiver	Frequency: 403-473MHz Channel: 116 (16 configurable) Transmitting power: 1W/2W/4W Protocols: HI-TARGET, TRIMTALK450S, TRIMMARK III, TRANSEOT, SATEL-3AS, etc.. Working range: 5-6km typical, 6-7km optimal
SYSTEM	
Start-up Time	3 Seconds
Data Storage	16GB internal storage
Sensor	Electronic bubble and tilt survey
DATA MANAGEMENT	
Positioning Output	1Hz - 20Hz
Message Type	CMR, RTCM2.X, RTCM3.0, RTCM3.2
Network Mode	VRS, supports NTRIP protocol
Output Format	ASCII: NMEA-0183, binary data
Application Function	OTG, NFC, WebUI, USB firmware upgrade, network repeater station Intelligent voice, self-test function, smart battery, battery quick change
GENERAL	
Environmental Protection	IP67 environmental protection Humidity 100% condensing Shock resistant body to 2m (6.5ft) pole drop Temperature -40° to 75°C Operating -55° to 85°C Storage
Physical Properties	OLED Screen: 1.54in Resolution: 128 x 64 Size: 137mm x 131mm Weight: 1.35kg including battery Power: 6 - 28V DC Input Battery: 6800 mAh Li-Ion Battery Operation Time: 10 hours (Network/ Cellular - RTK Rover)

# Product Comparison



		Eyr	Freyja	SL700	SL800	SL900	
<b>GNSS Specifications</b>	Channels	1408/800+(optional)	800+	800+	555	1760	
	GPS	L1C/A,L1C,L2P(Y),L2C,L5	L1 / L2 / L5 / L2C	L1, L2, L5,L2C	L1C/A, L1C, L2C, L2P, L5	L1C/A, L1C, L1PY, L2C, L2P, L5	
	BDS	B1I,B2I,B3I,B1C,B2a,B2b	B1, B2, B3, B1C, B2a	B1, B2, B3, B1C, B2a	B1, B2, B3	B1I, B1C, B2a, B2I, B3	
	GLONASS	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1 C/A, L2C/A, L2P, L3, L5	L1CA, L2CA, L2P, L3 CDMA	
	GALILEO	E1, E5, AltBOC, E5a, E5b, E6	E1, E5, AltBOC, E5a, E5b, E6	E1, E5, AltBOC, E5a, E5b, E6	E1, E5 AltBOC, E5a, E5b, E6	E1, E5 AltBOC, E5a, E5b, E6	
	QZSS	L1,L2,L5,L6	L1, L2, L5, L6	L1, L2, L5, L6	L1 C/A, L1C, L2C, L5, L6	L1 C/A, L1C, L2C, L5, L6	
	SBAS	L1,L2,L5	L1, L5	L1, L5	L1, L5	L1, L5	
	IRNSS	L5	L5	L5	L5	L5	
	Global Correction Service	-	-	-	TerraStar(optional)	-	
	<b>Communication</b>	Cellular Modem	4G LTE	N/A	4 G LTE	N/A	4G LTE
Internal Radio		SatLab Radio	SatLab Radio	SatLab Radio	N/A	SATEL Radio	
I/O Interface		Bluetooth:4.0/2.1+EDR	Bluetooth:4.0/2.1+EDR	Bluetooth, 4.0/2.1+EDR	Bluetooth 4.0	Bluetooth:V2.1+EDR	
NFC		NFC	NFC	NFC	NFC	NFC	
WiFi		WiFi 2.4G,802.11 b/g	WiFi 2.4G,802.11 a/b/g/n	WiFi 2.4G,802.11 b/g/n	N/A	WiFi 2.4G,802.11 b/g/n	
<b>Handheld</b>	Controller/Tablet	SHC55, TBA, SL86, A8003H	SHC55, TBA, SL86, A8003H	SHC55,SL86	SHC55,SL86	SHC55,SL86	
<b>Software</b>	Software	SatSurv	SatSurv	SatSurv,Aplitop TCPGPS,Carlson SurCE	SatSurv,Aplitop TCPGPS,Carlson SurCE	SatSurv,Aplitop TCPGPS,Carlson SurCE	
<b>Positioning</b>	Hi-Fix	Support	Support	Support	—	Support	
	Tilt Survey	Yes	Yes	No	No	Yes	
	RTK	H: 8mm + 1ppm RMS/ V: 15mm + 1ppm RMS	H: 8mm + 1ppm RMS/ V: 15mm + 1ppm RMS	H: 8mm + 1ppm RMS/ V: 15mm + 1ppm RMS	H: 8mm + 1ppm RMS/ V: 15mm + 1ppm RMS	H: 8mm + 1ppm RMS/ V: 15mm + 1ppm RMS	H: 6mm + 0.5ppm RMS/ V: 10mm + 1ppm RMS
	Network RTK	H: 8mm + 1ppm RMS/ V: 15mm + 1ppm RMS	H: 8mm + 1ppm RMS/ V: 15mm + 1ppm RMS	H: 8mm + 0.5ppm RMS/ V: 15mm + 0.5ppm RMS	H: 8mm + 1ppm RMS/ V: 15mm + 1ppm RMS	H: 8mm + 0.5ppm RMS/ V: 15mm + 0.5ppm RMS	H: 8mm + 0.5ppm RMS/ V: 15mm + 0.5ppm RMS
	High-precision static	H: 2.5mm + 0.1ppm RMS/ V: 3.5mm + 0.4ppm RMS	H: 2.5mm + 0.1ppm RMS/ V: 3.5mm + 0.4ppm RMS	H: 2.5mm + 0.1ppm RMS/ V: 3.5mm + 0.4ppm RMS	H: 2.5mm + 0.1ppm RMS/ V: 3.5mm + 0.4ppm RMS	H: 2.5mm + 0.1ppm RMS/ V: 3.5mm + 0.4ppm RMS	H: 2.5mm + 0.1ppm RMS/ V: 3.5mm + 0.4ppm RMS
	Static and Fast Static	H: 2.5mm + 0.5ppm RMS/ V: 5mm + 0.5ppm RMS	H: 2.5mm + 0.5ppm RMS/ V: 5mm + 0.5ppm RMS	H: 2.5mm + 0.5ppm RMS/ V: 5mm + 0.5ppm RMS	H: 2.5mm + 0.5ppm RMS/ V: 5mm + 0.5ppm RMS	H: 2.5mm + 0.5ppm RMS/ V: 5mm + 0.5ppm RMS	H: 2.5mm + 0.5ppm RMS/ V: 5mm + 0.5ppm RMS
	SBAS	H: 50cm RMS / V: 85cm RMS	H: 50cm RMS / V: 85cm RMS	H: 50cm RMS / V: 85cm RMS	H: 50cm RMS / V: 85cm RMS	H: 50cm RMS / V: 85cm RMS	H: 50cm RMS / V: 85cm RMS
	DGPS	H: 25cm RMS / V: 50cm RMS	H: 25cm RMS / V: 50cm RMS	H: 25cm RMS / V: 50cm RMS	H: 25cm RMS / V: 50cm RMS	H: 25cm RMS / V: 50cm RMS	H: 25cm RMS / V: 50cm RMS
	Initializing Time	<10s	<10s	<10 s	<10 s	<10 s	2 - 8s
	Initializing Reliability	99.9 %	99.9 %	99.9 %	99.9 %	99.9 %	99.9 %
<b>Physical</b>	Internal Storage	8GB Internal Storage	8GB Internal Storage	8 GB Internal Storage	8 GB Internal Storage	8GB Internal Storage,Support 32GB SD card	
	IP Level	IP68	IP67	IP67	IP67	IP67	
	Anti-drop	Shock resistant body to 2m(6.5ft) pole drop	Shock resistant body to 2m(6.5ft) pole drop	Shock resistant body to 2m(6.5ft) pole drop	Shock resistant body to 2m(6.5ft) pole drop	Shock resistant body to 2m(6.5ft) pole drop	
	Operating Temperature	-45 C to 75 C	-30 C to 70 C	-40 C to 65 C	-40 C to 65 C	-40 C to 65 C	
	Storage Temperature	-55 C to 85 C	-40 C to 80 C	-40 C to 85 C	-40 C to 85 C	-40 C to 85 C	
	Size	130mm×79mm	132mm×67mm	164mm×83.5mm	127.5mm×57mm	170 mm x 95 mm	
	Weight	970g Including Battery	800g Including Battery	1.4kg Including Battery	700 g Including Battery	1.2kg Including Battery	
	Battery	6900mAh High-capacity lithium battery	6800 mAh Lithium-ion Battery	5000 mAh Lithium-ion Battery	6300 mAh Lithium-ion Battery	5000 mAh Lithium-ion Battery	
	Battery Life	12 Hours RTK Rover	15 Hours Static/12 Hours RTK Rover	≥13 Hours RTK Rover	9 Hours Static / RTK Rover	10 Hours RTK Rover	

# SHC55

Bigger Screen, Wider Vision



5.5" sunlight readable display capacitive touch screen for fingers or stylus.



Alphanumeric full keyboard designed, convenient for different measurement application scenarios.



Quick charge with internal lithium battery to improve efficiency under long time job.



Android 10.0 operating system equipped to maintain the productivity of numerous survey projects and data.



# SATSURV

Professional Field Survey Software

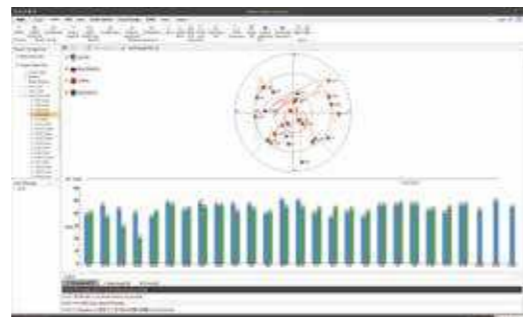
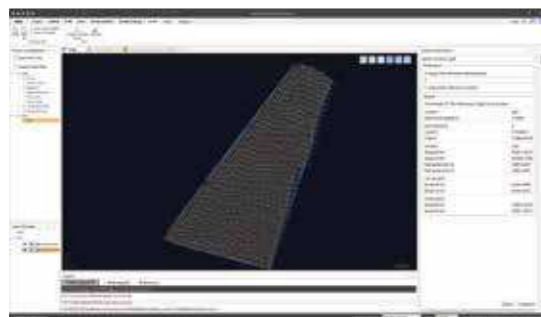
- Integrates surveying technology to achieve reliable positioning accuracy in tough conditions
- Supports WMS/WMTS and Google maps service
- Advance data stakeout function supports AR stakeout and CAD format stakeout
- Professional road design and stakeout functions, DTM surface, etc.
- Multiple popular format support, convenient cross-project operation
- Powerful COGO routines



# SGS 2.0 (SatLab GeoBiz Solution)

High-precision GNSS Data Post-processing Software

- Advanced solution engine that focuses on GNSS data post-processing.
- Stable and automatized data processing procedure for better solution results.
- Concise and user-friendly operational interface to facilitate work.
- Information visualization and quality control for data management.



# TBA

Handheld Tablet

Powered by Android 10, the TBA tablet with 10-inch sunlight readable screen provides an efficient experience for field users. Optional high-precision GNSS version for GIS applications.

**IP67**

IP67 Standard

**MIL**

MIL-810G Standard\*



Global Connectivity:  
4G LTE, 3G GSM



Dedicated GPS Antenna



Sunlight Readable Display



Unique Voice  
Telephony Support



4 G Memory  
64 G Storage

**2.2 Ghz**

Qualcomm 8953 processor





# SLT2

## High Accuracy and Wide Compatibility Total Station

The SLT2 has a fast and powerful reflectorless EDM (0.8 seconds) that is designed to provide advanced accuracy with an efficient workflow in a sleek body. In order to ensure long-term operation in adverse weather conditions, various environmental tests such as vibration, drop, temperature, and humidity were performed to achieve the highest quality.



※ Accuracy: 2"



### New EDM

Speed down to 0.3s.  
Reflectorless range 800m.



### Colorful Screen

2.8-inch 240\*320 pixel,  
clearly visible in sunlight.



### Power

3000mA high-capacity  
Li-ion battery.  
Battery life exceeds 18h.



### Data Transmission

USB cable and U disk.  
Format:(\*.csv),(\*.txt),(\*.dat),  
(\*.dxf),(\*.gt7),(\*. htf) etc.



### Trigger Key

More efficient  
and accurate.



### Stable Hardware Design

Dual-axis tilt sensor.  
High-precision bead shafting.  
Sealed encoder disk.



### Software Connection

Support SurvCE and  
Hi-Survey Road connection.  
Support secondary development.

## Applications

- Road Works
- Land Surveying
- Topography and As-built
- Construction Survey and Layout
- Foundation and Exterior

# SLT10

## High Light Screen and High Reliability Total Station

SLT10 adopts a high-definition color screen to provide better human-computer interaction. The new optical design and absolute coding technology contribute to better measurement performance. High-precision compact bead shafting and sealed encoder disk enhance accuracy and stability. A novel measuring experience will be offered by the numerous built-in measurement programs and maintenance procedures.



※ Accuracy: 2"



### New EDM

Reflectorless range 1000m.  
Speed down to 0.3s.



### Colorful Screen

2.8-inch 240\*320 pixel,  
clearly visible in sunlight.



### Trigger Key

More efficient and  
accurate.



### Auto Sensor

Get temperature and  
pressure automatically.  
One-click access.



### Data Transmission

USB cable and U disk.  
Format:(\*.csv),(\*.txt),(\*.dat),  
(\*.dxf),(\*.gt7),(\*. htf) etc.



### Power

3000mA high-capacity  
Li-ion battery, LED  
display, Type-C charging.  
Battery life exceeds 18h.



### Stable Hardware Design

Dual-axis tilt sensor.  
High-precision bead shafting.  
Sealed encoder disk.



### Software Connection

Support SurvCE and  
Satsurv connection.  
Support secondary  
development.

# TTS2

## The New Cost-effective Total Station

Affordable price with classical convenient functions, providing accurate and reliable results.

### Key Features



High-performance MCU STM32



Dual-axis Compensation



Absolute Encoding



Diagonal Eyepiece



※ Accuracy: 2"

# SLX-1

## Multi-Application GNSS Receiver



Swedish Quality



Multiple Tasking



Multiple Transfer Data Transfer



Highly Precise GNSS Data



Linux OS On Board

- Full constellation tracking.
- Position accuracy with 2.5mm.
- Large capacity storage with 64GB.
- 12,500mAh large capacity battery that can work 24 hours continuously.
- Intelligent and secure integrated operation management platform.



### Applications

- Land Surveying
- Utilities
- Deformation Monitoring Solutions
- Hydrographic Application
- Topography and As-built
- Infrastructure
- Seismic Monitoring
- Reference Station

# Njord

## High Precision Position and Heading Receiver

- 1408-channel signal tracking: GPS L1/L2/L5, GLONASS L1/L2, BDS B1/B2/B3, Galileo E1/E5 and L-Band capability
- Convenient front panel display and configuration
- Multiple I/O ports for different signals and purposes including NMEA-0183 and pps
- Radio, cellular internet and cable and other kinds of communication
- Benchmark PPP Service technology provides seamless RTK performance during connection outage



# HydroBoat 990

## USV Bathymetry Solution of Efficiency and Durability

- One key setup with just a powerful controller, and the auto-connection makes it a direct-to-go system with a 2 km operation range and 200 meter depth measure range.
- Advanced pilot system for auto and manual mode, safeguarded by radar avoidance and hovering system.
- Compact design with 1408-channel heading GNSS receiver, 1 cm depth accuracy echosounder, and controlling system integrated.
- Stable hull design for standing waves and wind, IP67 and rugged body with collision durability.
- Advanced Android app for hydrography and pilot control, making the task easier to be done on the smart controller.



# ES224

## Dual-frequency Echo Sounder

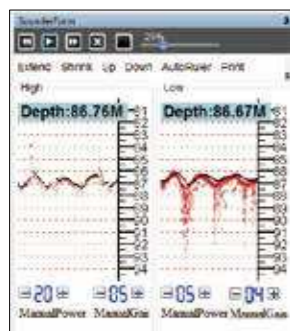
- 24 kHz & 200 kHz operation frequencies
- 0.15 to 300 meters and 0.8 to 2000 meters depth range
- Accuracies meet the IHO standards
- The full-featured software for reliable data collection and processing
- 17-inch large tempered glass screen shortcut buttons
- Windows Operating System with 128 GB internal data storage
- Support 3<sup>rd</sup> party transducer with different frequencies
- CE and EN 60945 certified



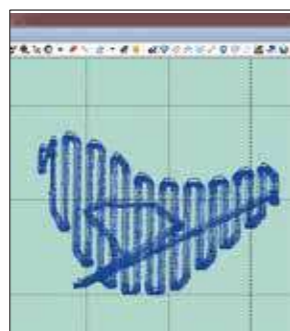
### Applications

- Tracking of the Seabed
- Turbid Water with High Sand Content
- Sediment Measurement for Dredging
- Measurement at High Speed

### Working Process



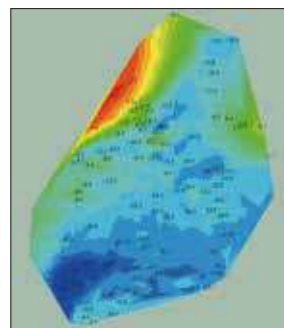
Surveying



Track



Process



Result Preview



User-defined Export



External Sensor

# HydroScan 1400/4900

## The Dual-frequency Side Scan Sonar Systems



### Multiple Frequency Available

There are multiple frequencies available to use according to required applications. 100/400kHz, 400/900kHz and 400kHz, users can always find a suitable mode.



### Real-time CW & CHIRP

Real-time switching provides an adaptive solution for users, while the anti-noise performance is improved, the resolution higher and the range longer.



### Multiple Internal Sensors

By integrating the sensor for heading, pitch, roll, depth and pressure, images are corrected in real time and related reference information can be acquired to ensure operational safety.



### Ultra Small Beam Angle

Beam angle can be up to 0.2°, providing resolution up to 1.25cm, so it is easy to recognize smaller objects.



### Strong and Robust Towsh

Adopting a fluid mechanics design, the 316 stainless steel housing can help the tow fish endure even 1000m depths.



### Meets IHO & NOAA Survey Standard

### Applications

- Hydrographic Surveys
- Geological Surveys and Mappings
- Search & Rescue & Found
- Channel/Clearance Surveys
- Water Construction Inspections
- Environmental Habitat Surveys
- Cable Route & Pipeline Surveys



# HydroFlow 600/1200

## Acoustic Doppler Current Profiler



### Multiple Built-in Sensors

Integrating the gyro, temperature, pressure and tilting sensor, HydroFlow 600/1200 offers multiple source of information for the operation reference.



### Long Profiling Range Multiple Cells

600Hz working frequency extends the current measurement range up to 75 meter (HydroFlow1200 up to 25m) with maximum 256 cells.



### High Precision Discharge Measurement

Supported by broadband signal processing technology, the anti-noise level has been improved while the Discharge measurement accuracy can be up to  $0.25\% \pm 0.25\text{cm/s}$ .



### Easy to Use Software

Clear software working flow and UI lower the learning curve, making it easy to use.

## Applications

- Hydrology Monitoring
- Irrigation Monitoring
- Fisheries Studies
- Flood Warning
- Environmental Studies



## Monitoring and collecting software



# Cygnus

## Handheld SLAM Scanner



Speedy and Accurate  
16-channel LiDAR



Real-time and Rapid Data Processing



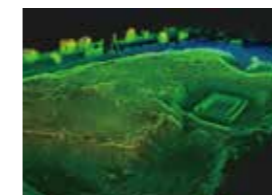
Powerful Mobile Software



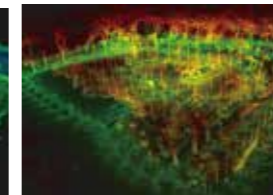
Light-weight, Durable and Versatile



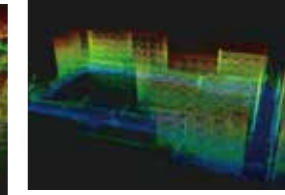
## Applications



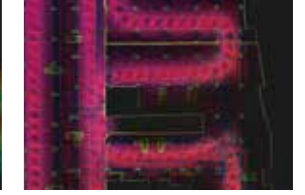
Stockpile Volumes Measurement



Natural Resources & Environment Investigation



Building Information Collection



Underground Space Digitalization

## Optional Accessories



UAV Platform Adaptor



RTK Backpack



Vehicular Bracket



Panoramic Camera



# MOBILITY BOOSTER

- Strategic Partnership Alliances
- Geosocial Networking Forum
- Global Reach Service and Support
- Sat-Live Day

## Strategic Partnership Alliances



More in the future...

## Global Reach Service & Support



Local support for different time zones



Reliable spare parts service



Partner programme to share experience



# SatLab Geosocial Networking Forum

# Sat-Live Day

Connect and share ideas within the geospatial industry

Join us for an exciting Live Demo and experience a Pilot Project

