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Trimble as a Technology Partner

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GNSS is Global, Accessible and Accurate

- Tried and tested solution
- Expanding constellations (more coverage)
- Affordable (but at what price)
- Easy to use (if you know what you are doing)
- A point rather than a picture






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Comparing data acquisition technologies

- GNSS is one of many technologies
 - Manual digitizing of paper maps
 - Collection of attribute data with pen and paper
 - Scanned paper maps
 - Aerial photography
 - Satellite imagery
 - LIDAR or other 3-D scan imagery

Images courtesy of GLTN








Combining data acquisition technologies

- Integrate digital imagery
 - Use Geo-referenced images
 - Use Geo-referenced archive materials
 - Easier to store and transport in field
 - Download additional data remotely via GPRS communications
 - Transfer of data back to offices via GPRS
- Integrate form filling (attribute collection)
 - Standardise form attributes
- Integrate photographic records
 - Time and Georeferenced
 - Data consolidation

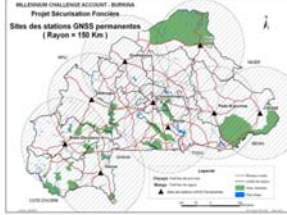











Changes in availability of 'Accuracy'

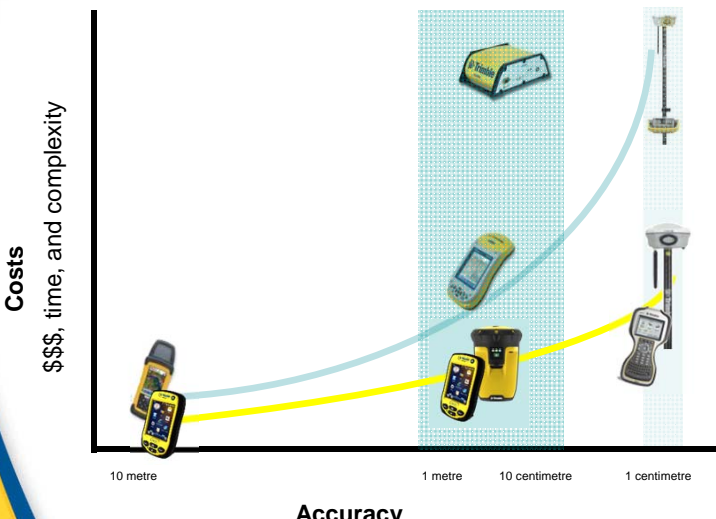
- Methods to correct GNSS
 - Raw data (accuracy stated as 30m by DoD, but 5-10m)
 - Post Processed (accuracy dependent on receivers used)
 - Local Base Stations
 - Network solutions
 - Real Time corrections
 - Accuracy
 - Centimetre
 - Decimetre
 - Sub Metre
 - Method of delivery
 - Cell Phones
 - Radio
 - Satellite Broadcast








GNSS requirements - Accuracy







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GNSS requirements - Accuracy


- What analysis will be made with the data?





To uniquely identify dwelling requires <1m GPS accuracy



Digging up a pipe requires <30cm GPS accuracy

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Use of GNSS Data Capture - Summary

- When planning GNSS data collection consider
 - what accuracy you really need and when you need it
 - the day to day conditions such as heat and dust and rough treatment the equipment must withstand
 - the GIS field software that can be used on the device
- GNSS is an established and proven technology used worldwide for GIS data collection
 - Allows better decision making at a lower cost than traditional data acquisition techniques



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Rapid mapping tool

- Mapping & surveying
- Light UAS
- Compact camera
- New-generation photogrammetry
- Vision software tools & automation

Gatewing X100
REVOLUTIONARY MAPPING

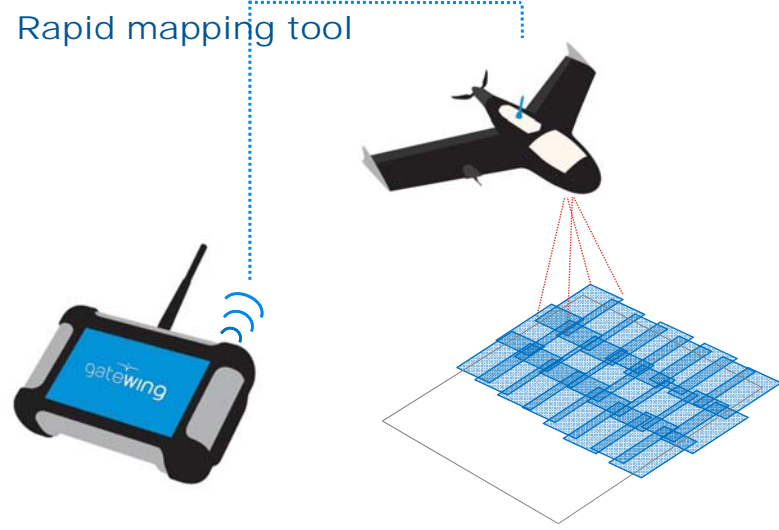


[EU design patent]
[Patent pending production method]

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Rapid mapping tool



Fully Automated Aerial Scan
Pre-programmed flight plan

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Rapid mapping tool



Thank you for your attention

Come and see us at the Booth in the Exhibition Hall

