

Digital Guangxi Geospatial Infrastructure

A Feasibility Study of Guangxi Surveying, Mapping and Geoinformation Development Strategies towards ASEAN Countries

Ms. Yuqing He

Tel.: +86(0771)5644450

Email: hyq_grace@163.com

14 - 17 August 2017

Rizqun International Hotel, Gadong, Negara Brunei Darussalam

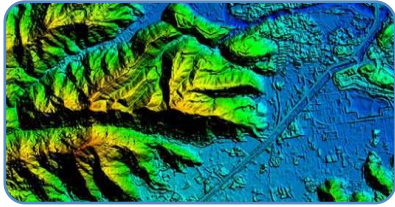
Geomatic Center of Guangxi, China



Nanning, Guangxi



Geomatics Center of Guangxi



1-Guangxi Geographic Data Management

- DOM/DEM/DRG/DLG



2-Guangxi CORS Operation and maintenance



3-Digital Guangxi Geo-spatial Infrastructure

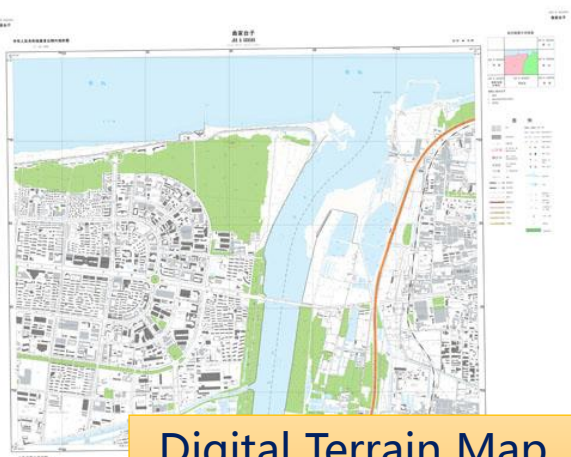
- MapWord·Guangxi



4-High-resolution Earth Observation System

- GF-01, GF-02, ZY-3, TH Satellite Remote Sensing Data

Geospatial Data



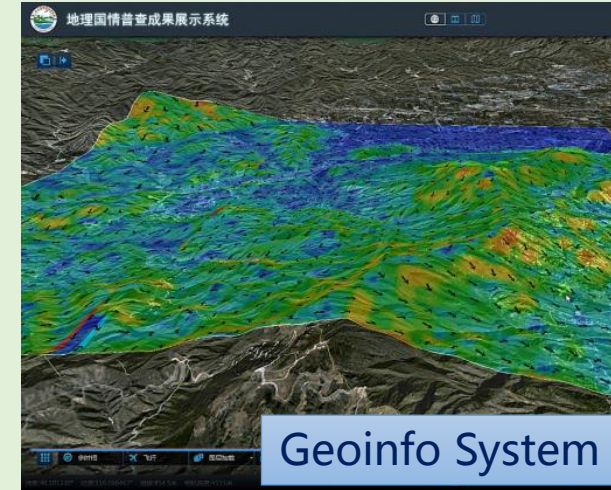
Digital Terrain Map



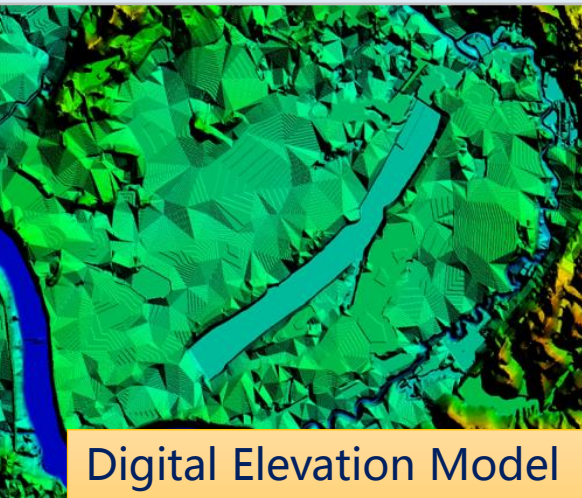
Web Map



DOM



Geoinfo System



Digital Elevation Model



3D Model

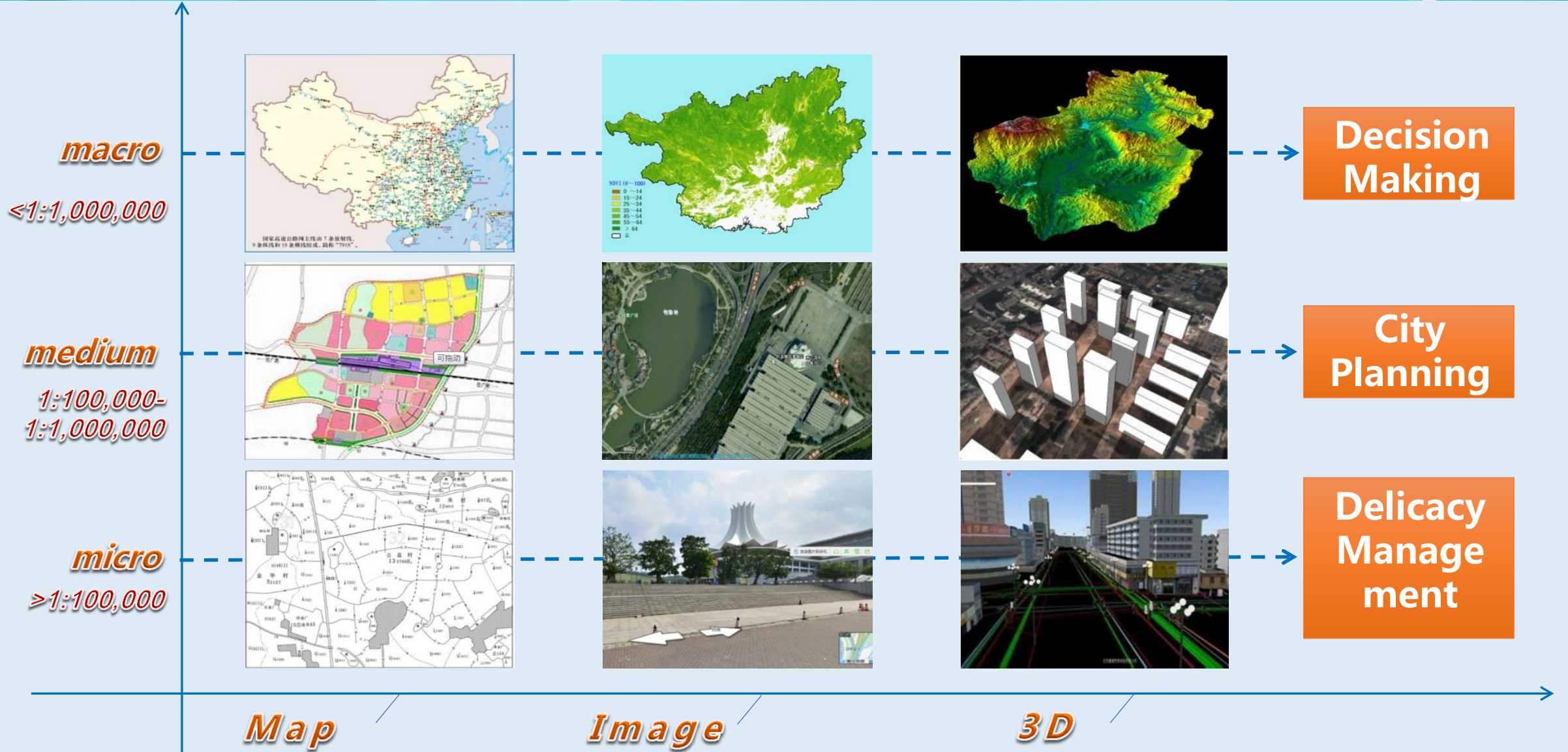


Street View data

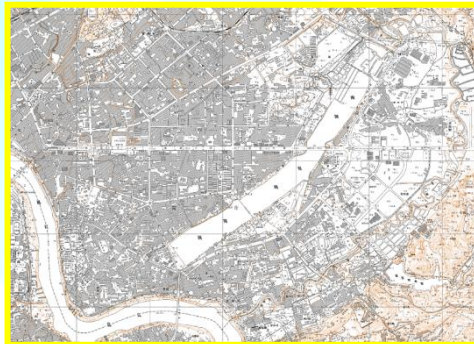
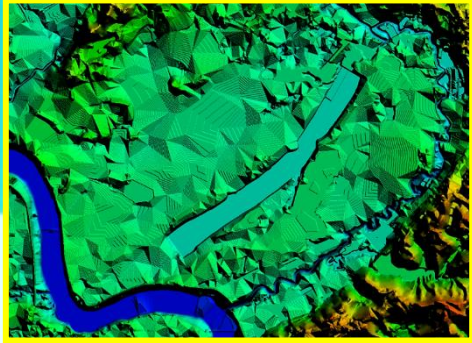


Positioning Service System

Scales



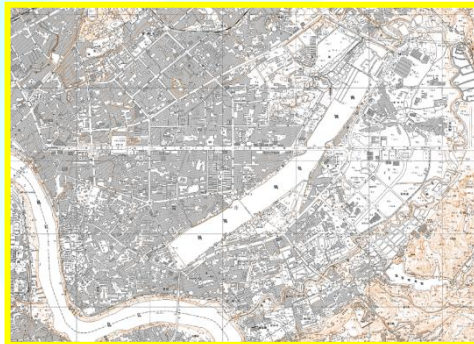
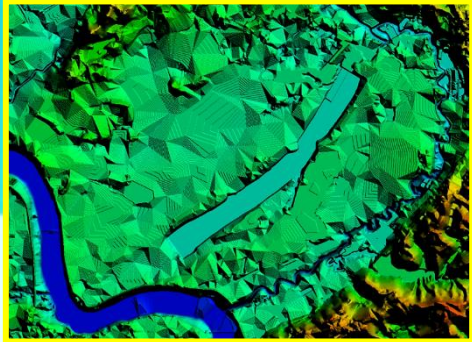
Data Volume



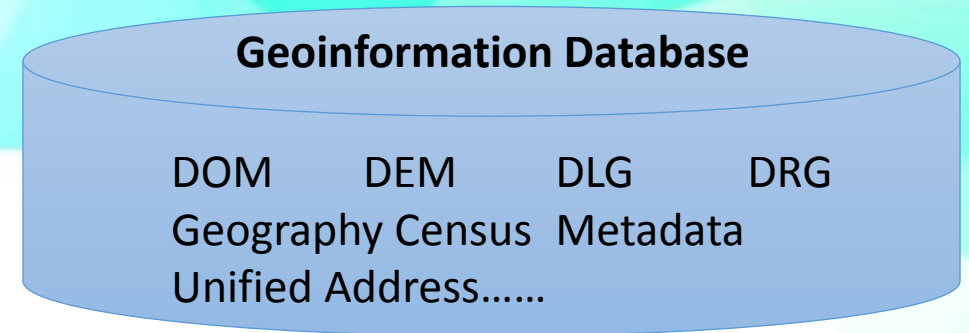
In 2016, our center received data from **25** projects with the total data volume of more than **10,000 GB**. Also, we distributed data to **21** major projects with **740,000** frames of geo products, the data volume reached **507 TB**.
100 million *yuan* = 20.4 million ringgit



Data Volume



How do we store them?



One Database

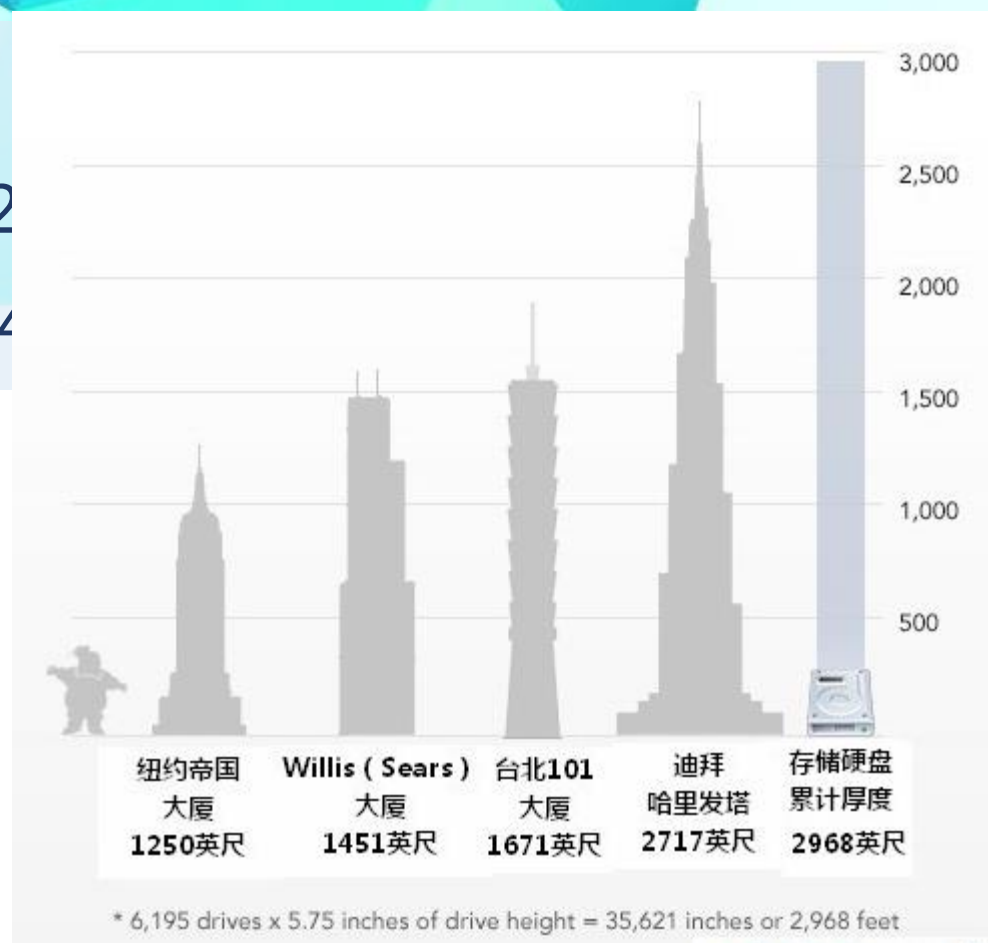
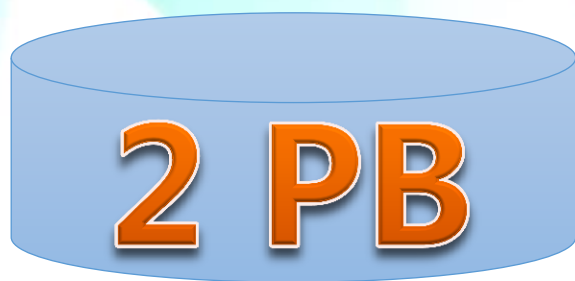
Data Volume

How much storage space do we need?

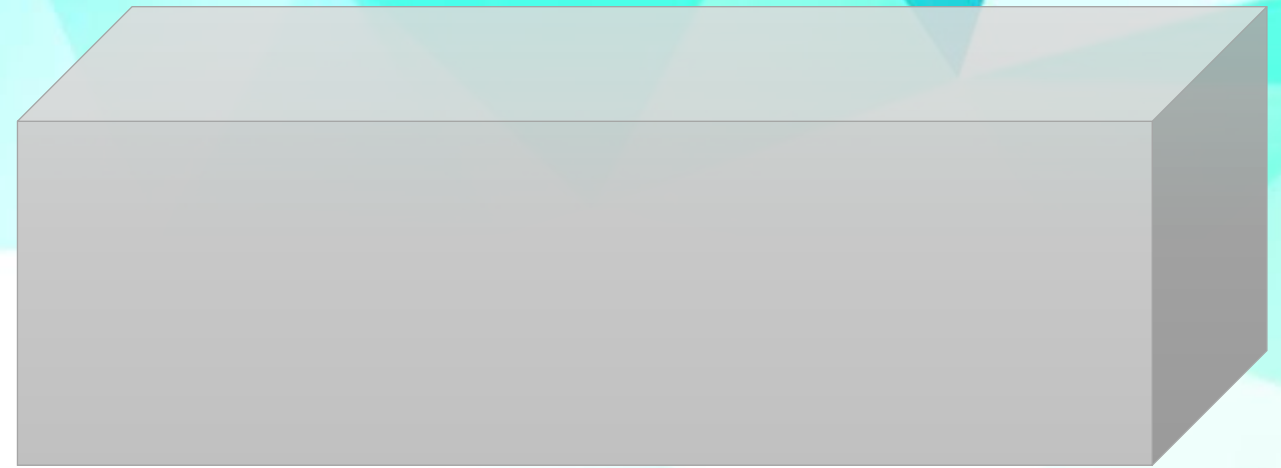
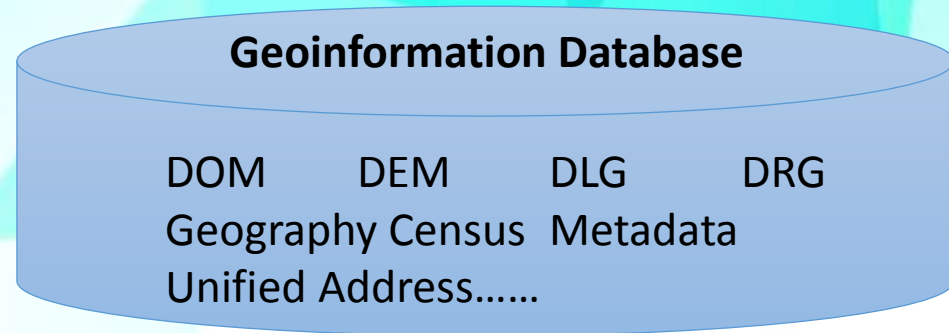
1 GB = 1024 MB = 1048576 KB

1 TB = 1024 GB = 1048576 MB = 1073741824 KB

1 PB = 1024 TB = 1048576 GB = 1073741824000 KB



How do we store them?



Big Data Center

Unified Coordinate System

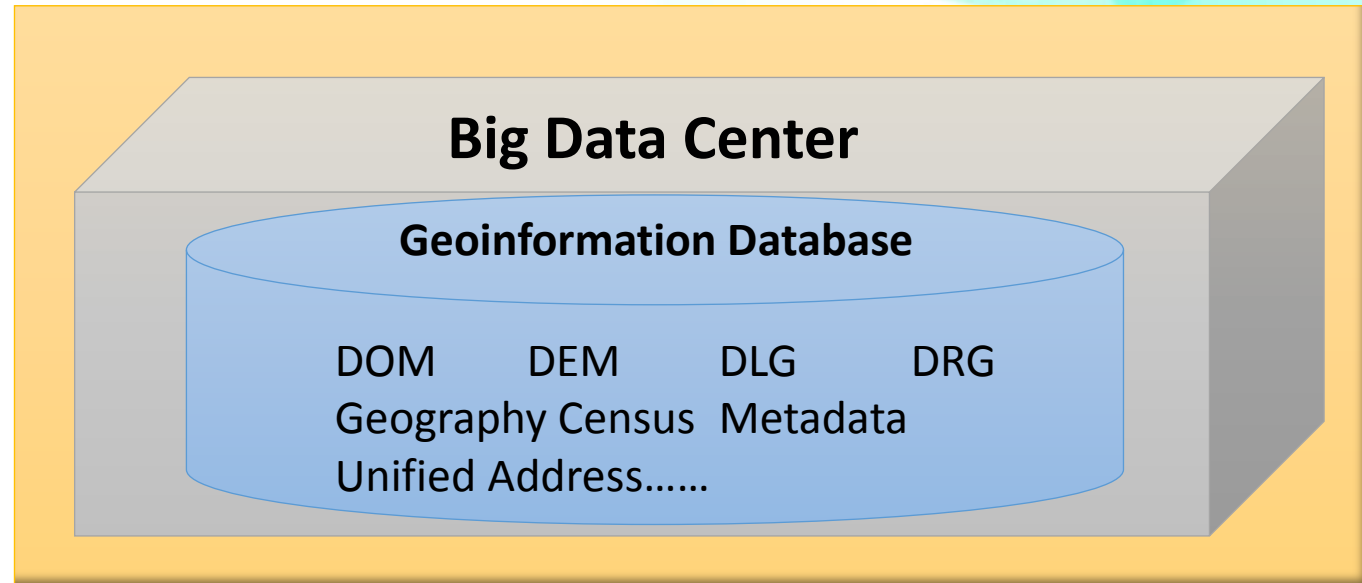
BJZ54 – Beijing 54

Xi'an80

WGS84--World Geodetic System 84

CGCS2000--China Geodetic Coordinate System 2000

Guangxi Fiducial System for Modern Surveying



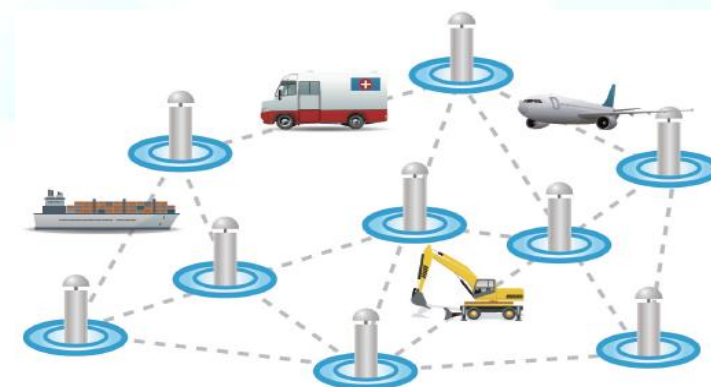
Guangxi Fiducial System for Modern Surveying

GPS Network

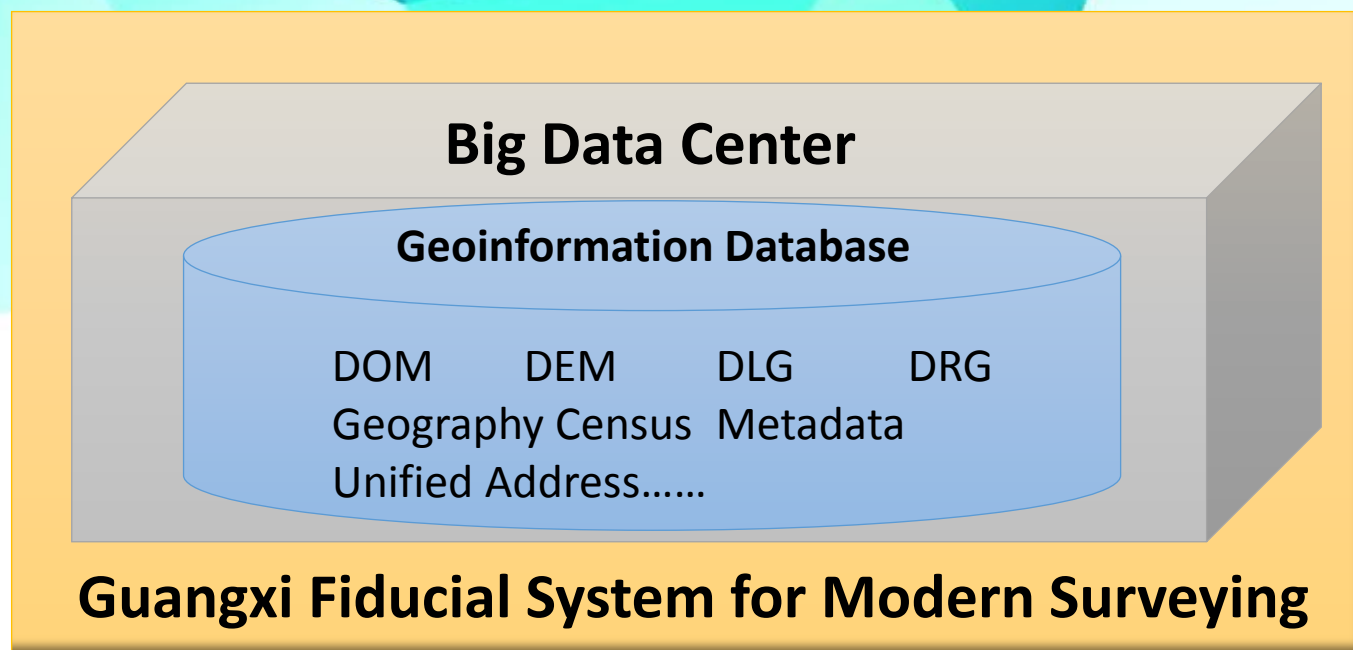
Leveling Network

Quasi-geoid

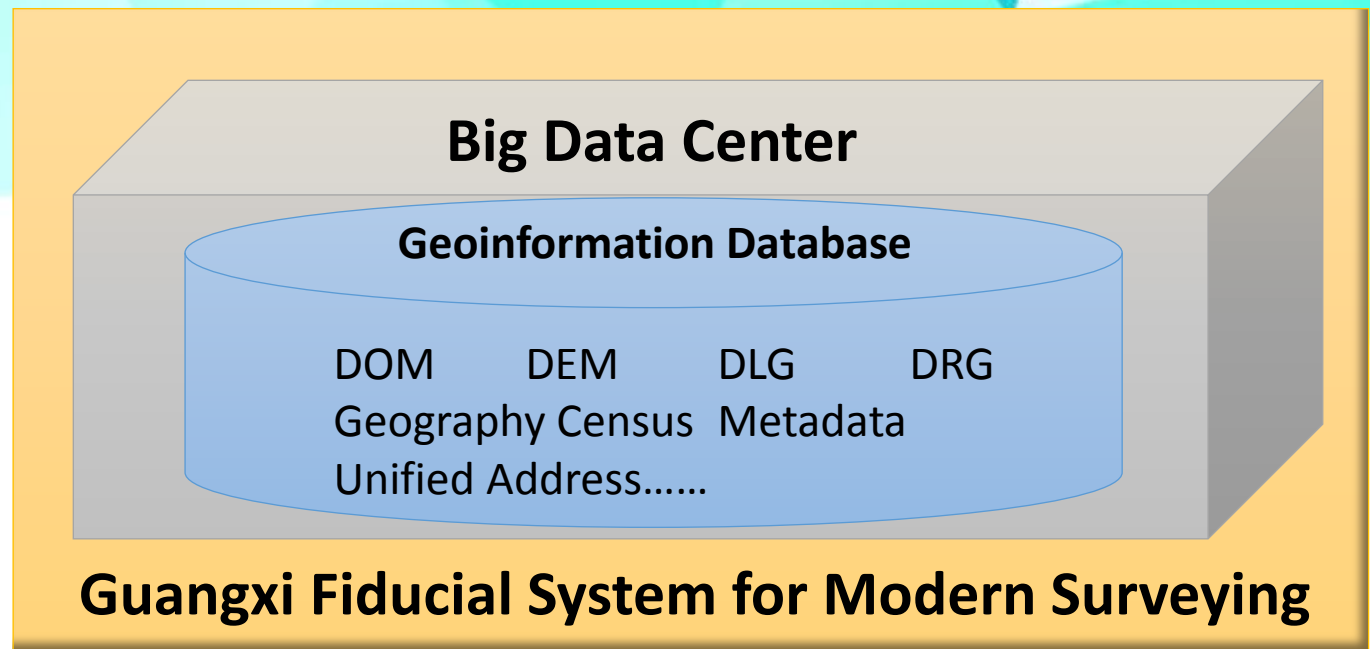
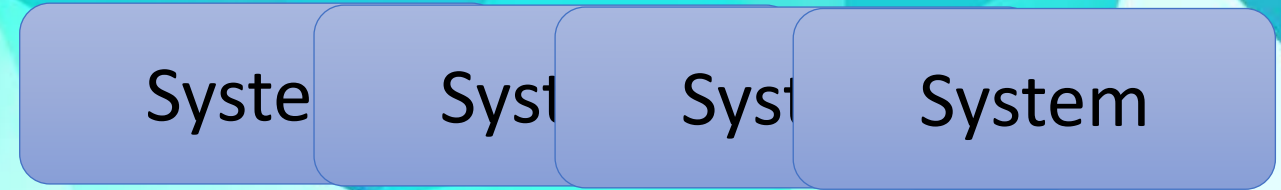
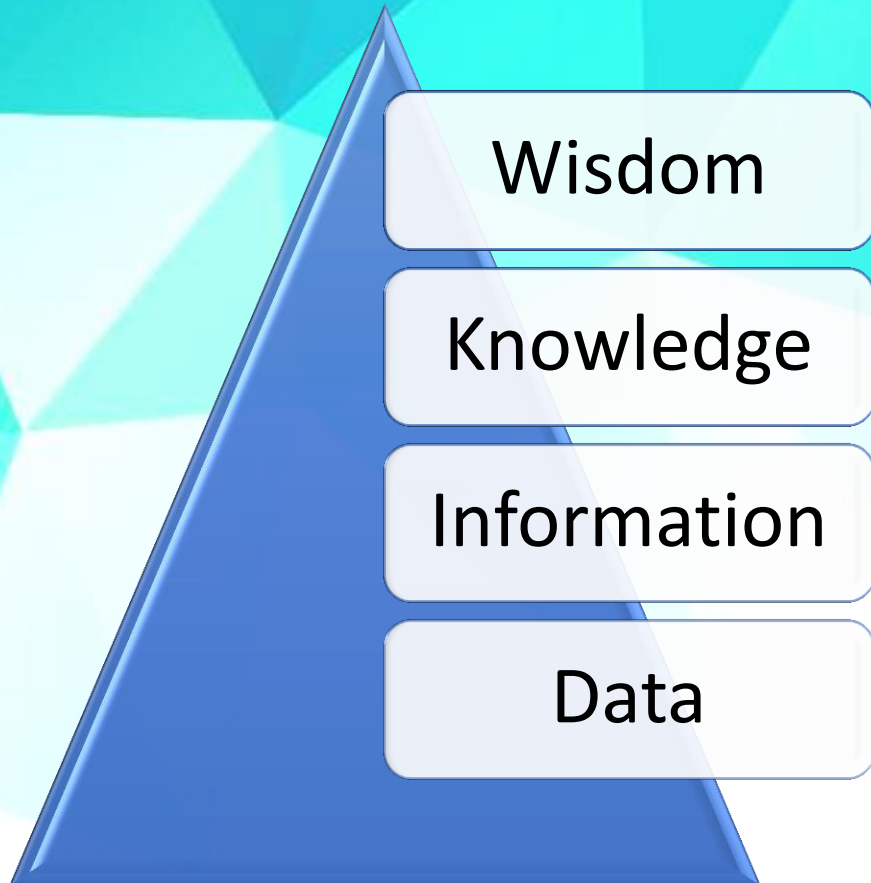
CORS Network

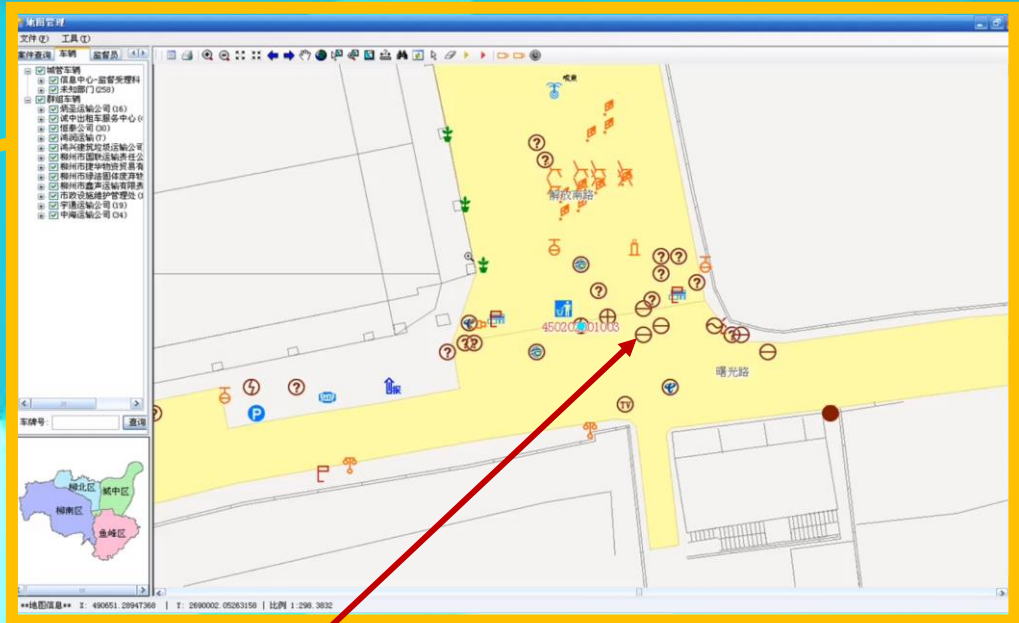
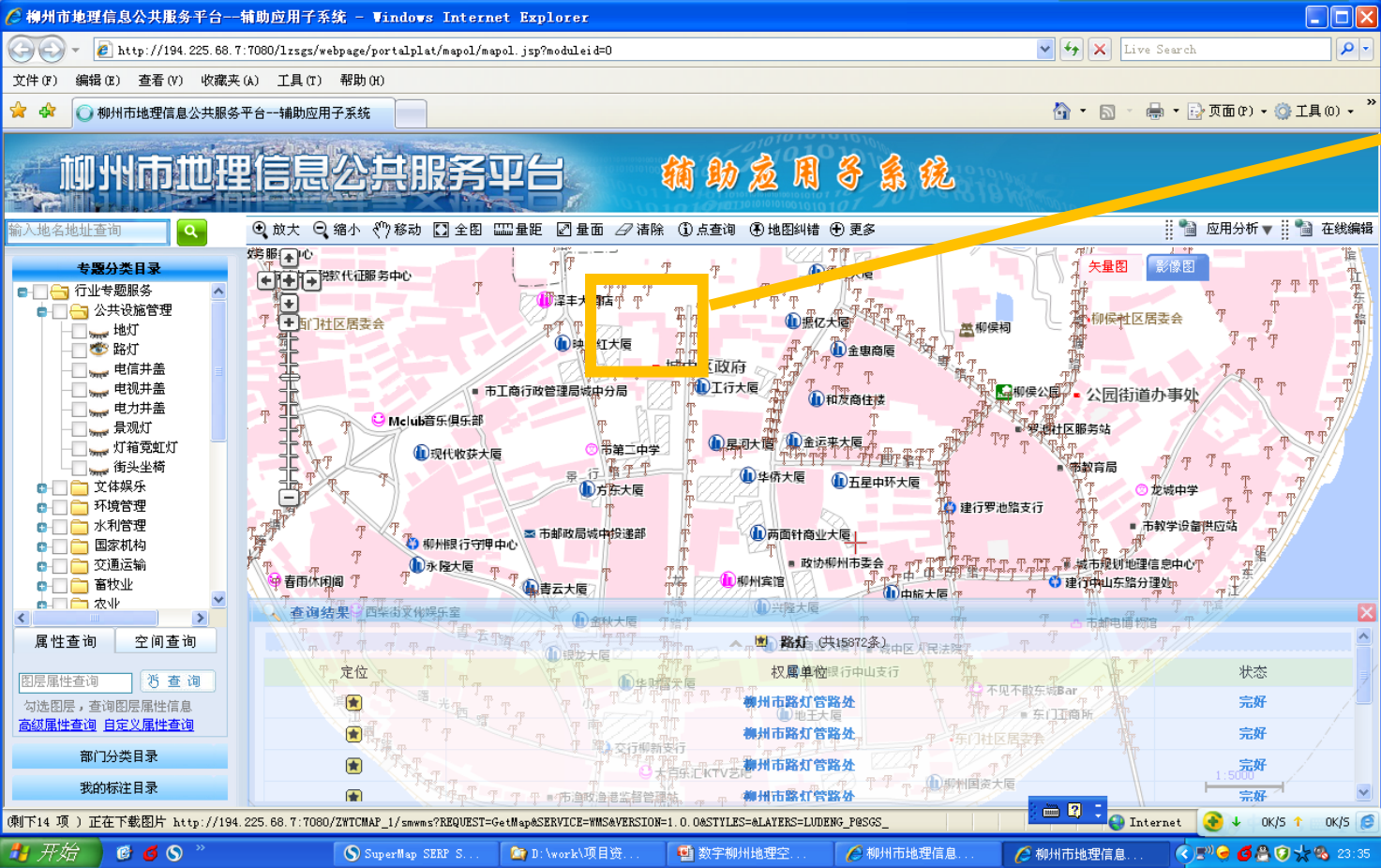


Guangxi Fiducial System for Modern Surveying



How to use geo-data?





部件编号	450202105004495	
部件分类	井盖	
部件子类	电力井盖	
X/Y坐标	490664	2689994
型号	KTL-4800	
单元网格	4502020010017	
所属城区	城中区	
所属街道	城中街道办事处	
所属社区	龙城社区居委会	
责任部门	柳州供电局城中分局	



System Instance: Digital Urban Management

SHUZILIUZHOU SHUZICHENG GUAN

System Instance: Digital Urban Management



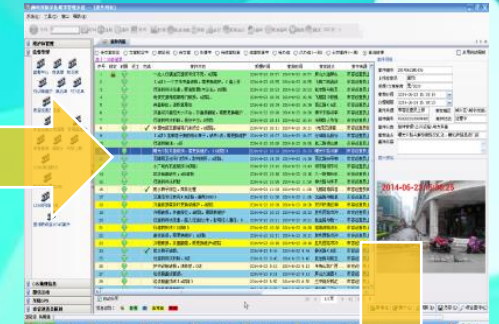
**Citizen report
well lid destroyed**



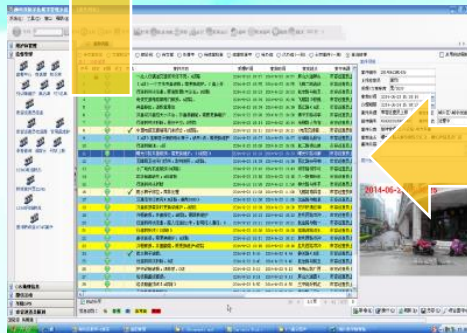
**Control Center
deploy inspector**



**Inspector take
photo and
confirm**



**Field info sent
back to system**



**Case close and text
the reporter**



**Take photo and
upload it to
system when
finish**




**Responsible
dept. send staff
to repair**



**Control center
notify relevant
department**

System Instance: MapWorld Guangxi

今天是2017年8月14日 星期一 | 首页 [在线地图](#) [服务中心](#) [应用定制](#) [标准规范](#) [新闻中心](#) [帮助中心](#) [市县节点](#) [登录](#) [注册](#) [皮肤](#)

 **天地图·广西**

[搜索](#) [驾车](#) [公交](#)

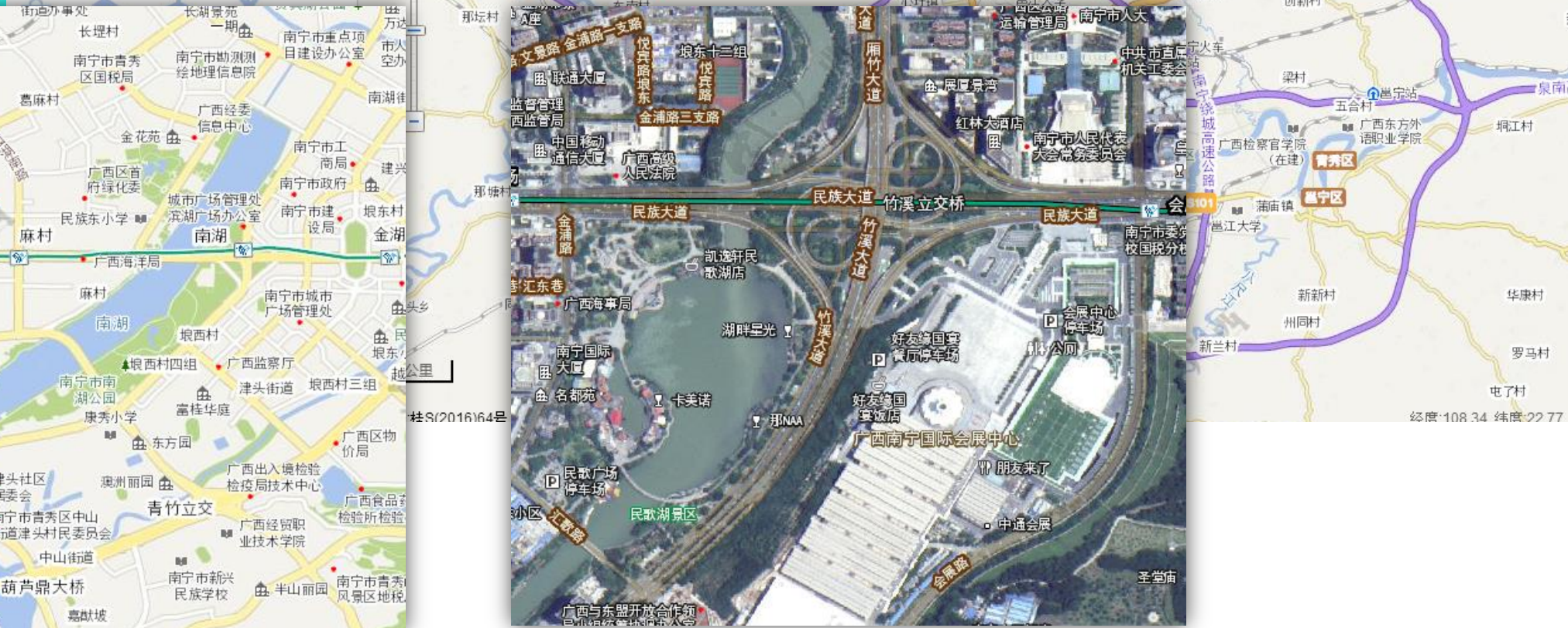
[意见反馈](#) [我们关注你的意见](#)

[地图查询](#) [收藏夹](#)

[政府](#) [交通](#) [医疗](#) [学校](#) [餐饮](#)

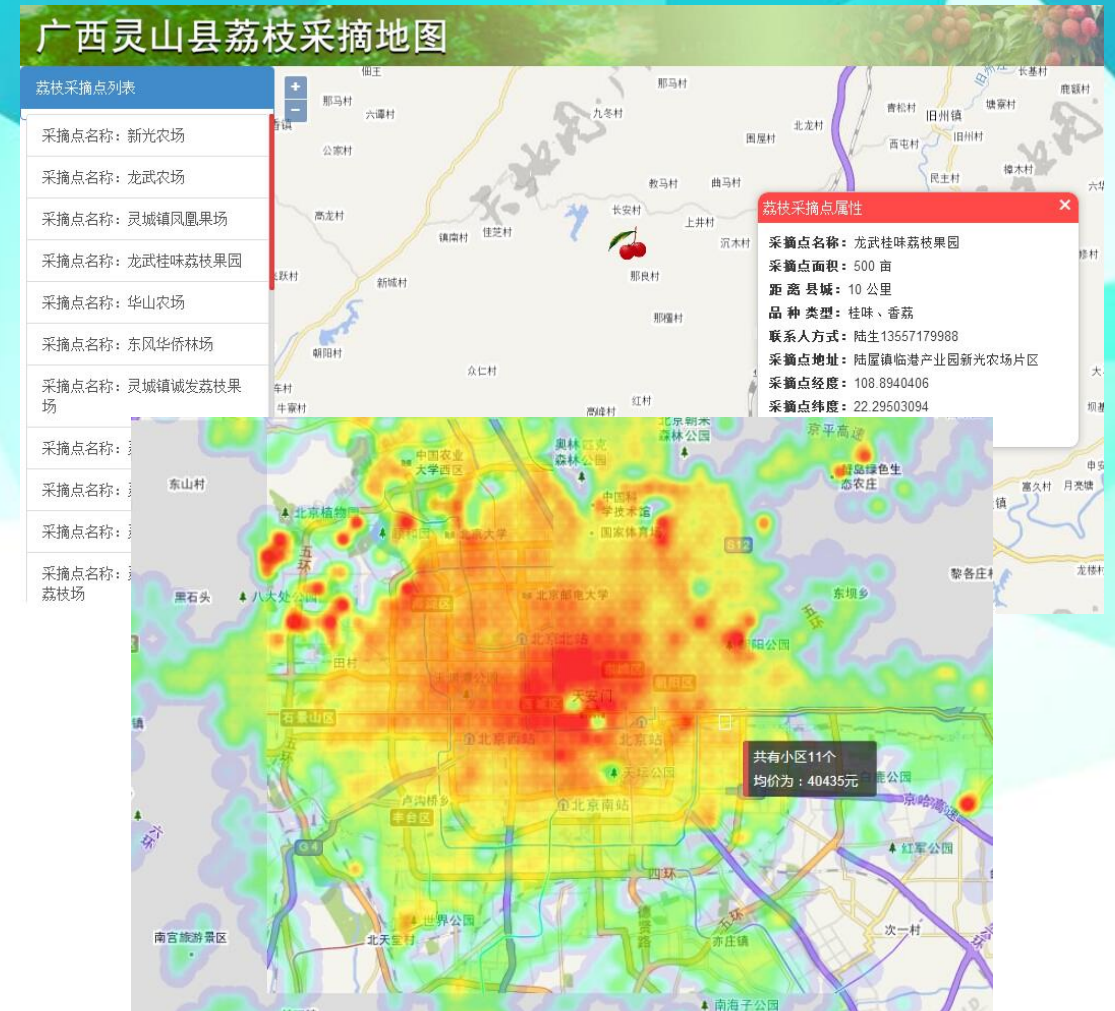
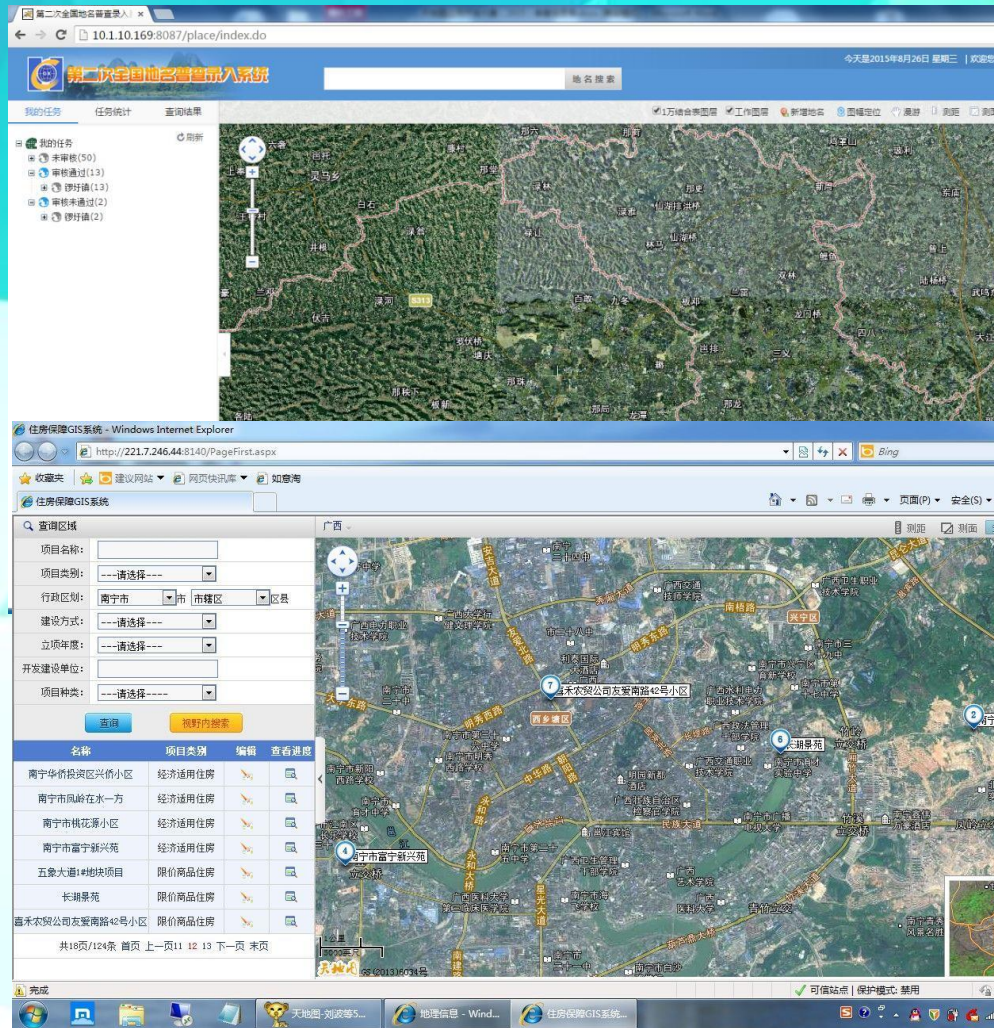
南宁市

高分影像接收 对比浏览 多时相浏览 视野内搜索 漫游 测距 测面 清除 工具 全屏



经度: 108.34 纬度: 22.77

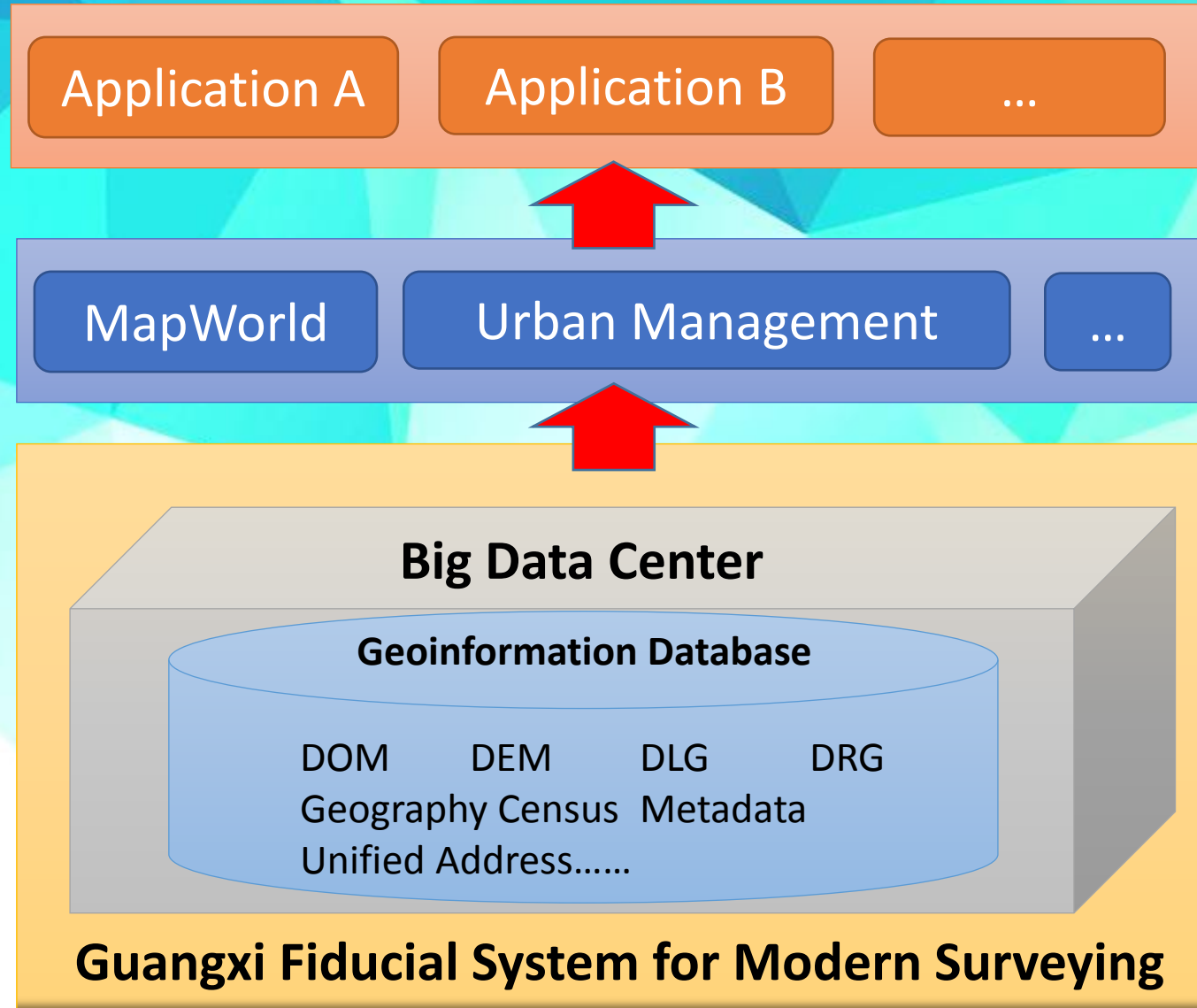
MapWorld Guangxi: Further Application



Affordable Housing Information System

Emergency Management
Image Access System

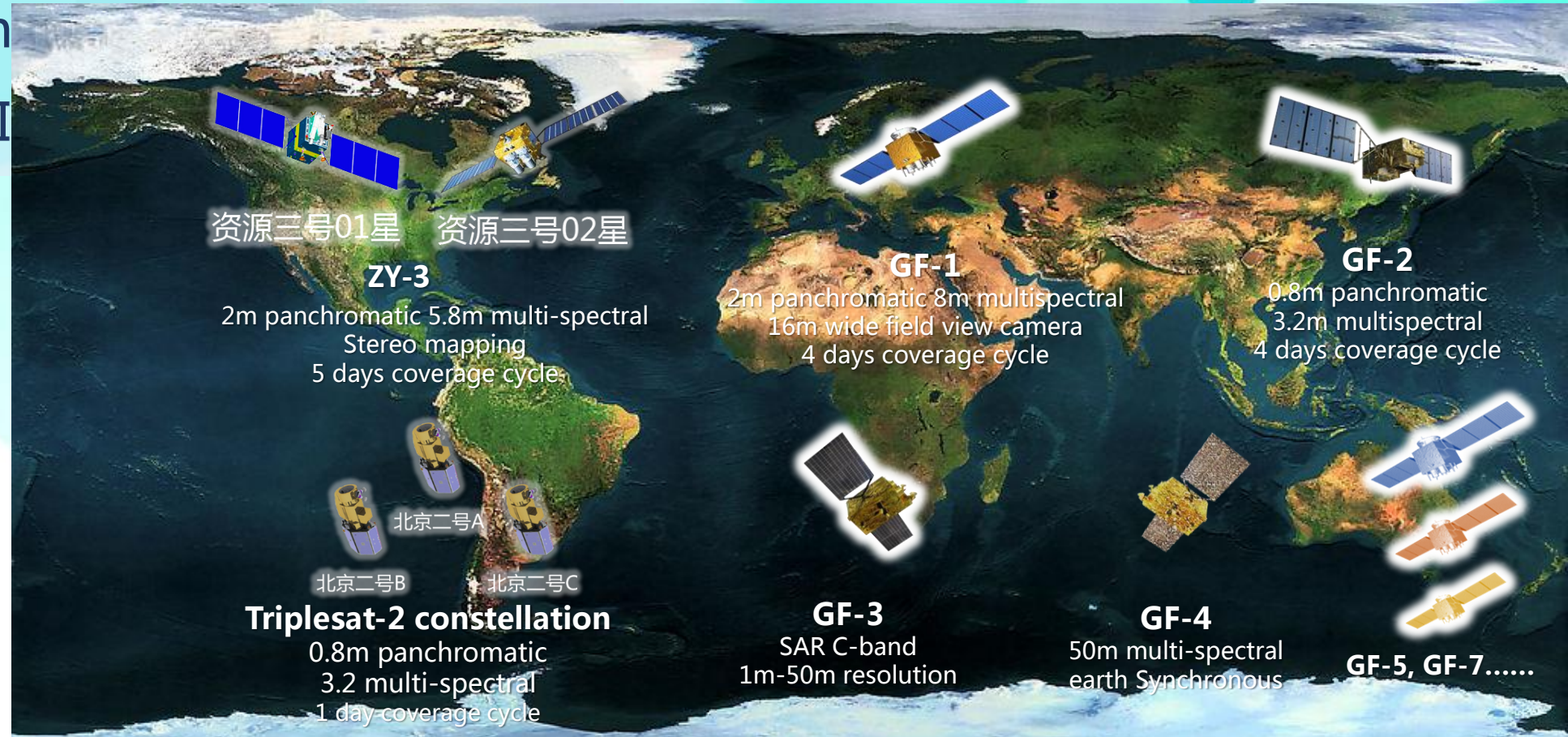
How to
update?

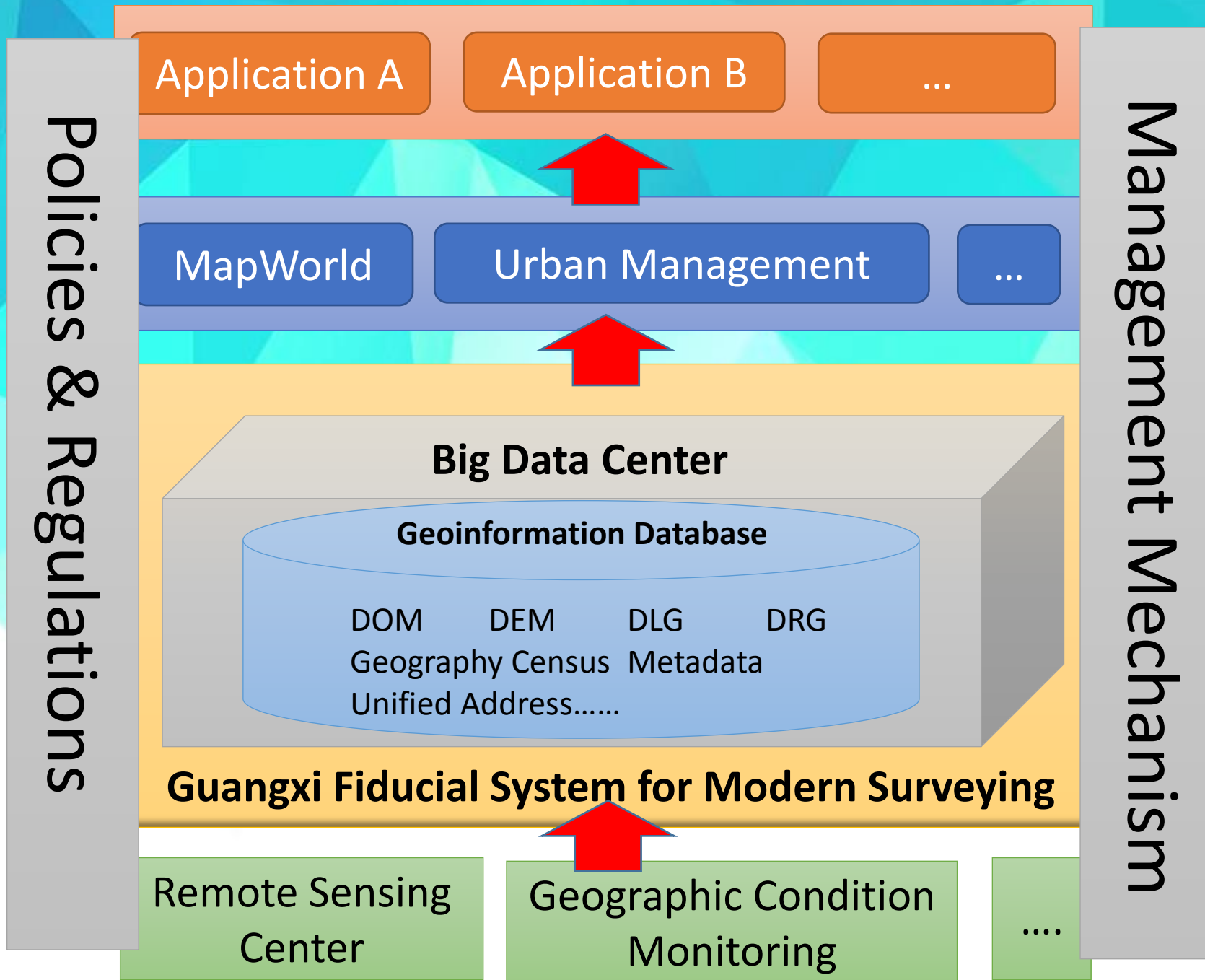


Updating Mechanism

Type of geo-data that needs update:

- Remote sensing image
- Digital map
- Point of Interest





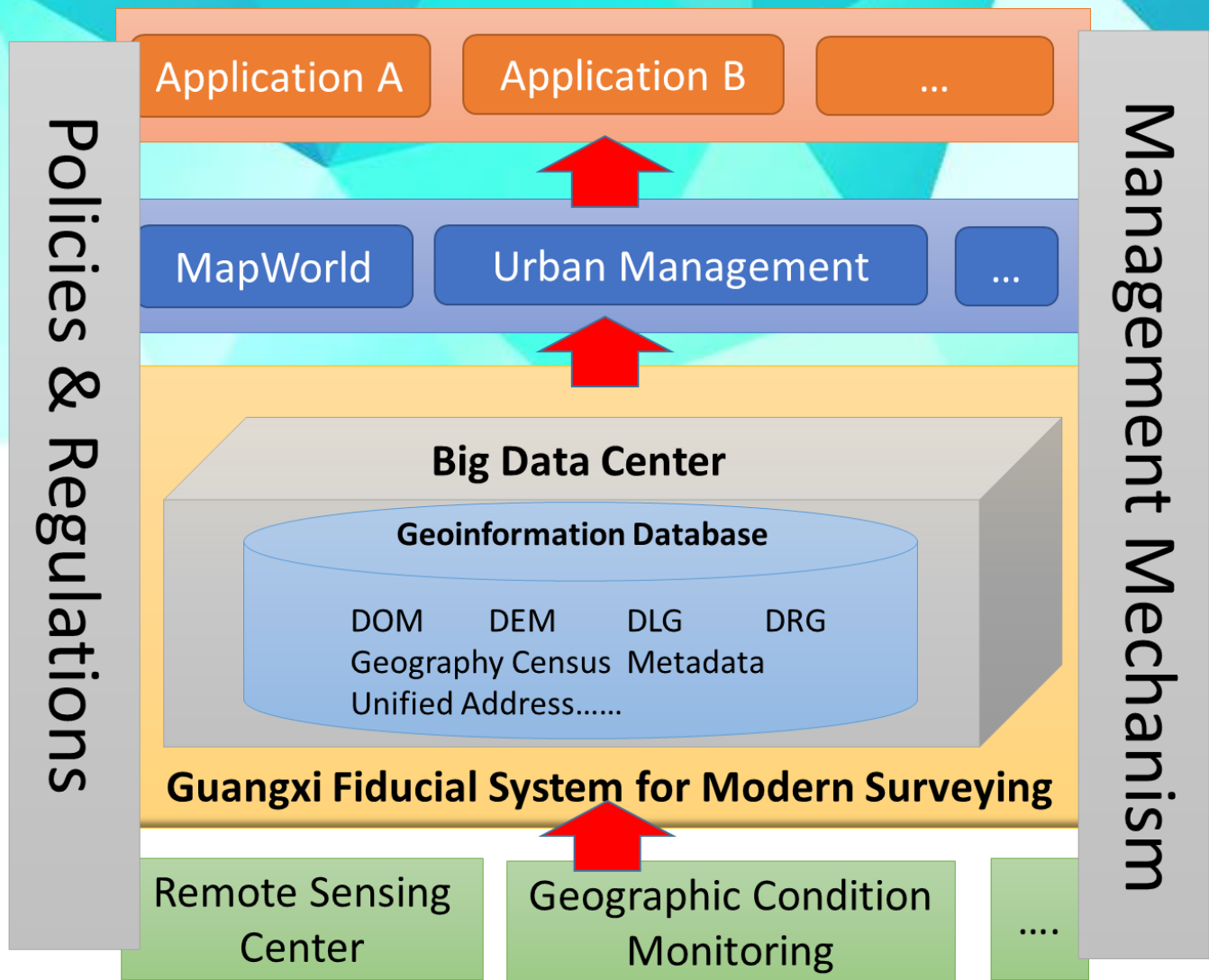
Goal:

- Authoritative
- Exclusive
- Unitive platform

Authoritative

Exclusive

Unitive platform



Digital Liuzhou Geospatial Infrastructure

- Share resources
- Reduce repeated investments



- Uniformly collect, process, maintain and publish open data
- Avoid repeated production of basic data, lower database creation cost

- No need to purchase hardware and GIS software
- Save funding

Shrink to 1/3 timespan comparing to original developing circle

Thank you!

Ms. Yuqing He

Tel.: +86(0771)5644450

Email: hyq_grace@163.com

14 - 17 August 2017

Rizqun International Hotel, Gadong, Negara Brunei Darussalam

Geomatic Center of Guangxi, China

