STATE COMMITTEE OF REAL ESTATE CADASTRE TO THE GOVERNMENT OF THE REPUBLIC OF ARMENIA

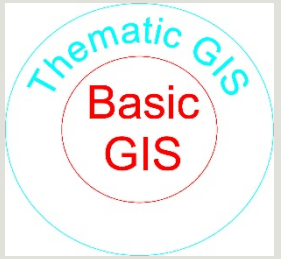
Geoinformation systems

Geographic information system (GIS) is an up-to-date computer technology of cartography and analysis of real life objects, including the collection, maintenance, processing, access and display of any kind of information.

At present GIS is one of the most actively and quickly developing directions of information technologies in the world.

Taking into consideration the specific meaning of GIS in the efficient management by the government and local authorities, The Government approved “The concept of the establishment and maintenance of the geoinformation systems of the Republic of Armenia” with the resolution N197-N dated January 20, 2005. The concept sets the requirements for the processing of information for the principal decision-making and functional content.

GIS is created and introduced step-by-step, at first the basic, followed by the thematic GIS.



Basic GIS is created and run by a Government-authorized institution.

GIS is created and introduced only in electronic form, preferably in WGS-84 (World Geodetic system).

GIS is created and run as a centralized information system.

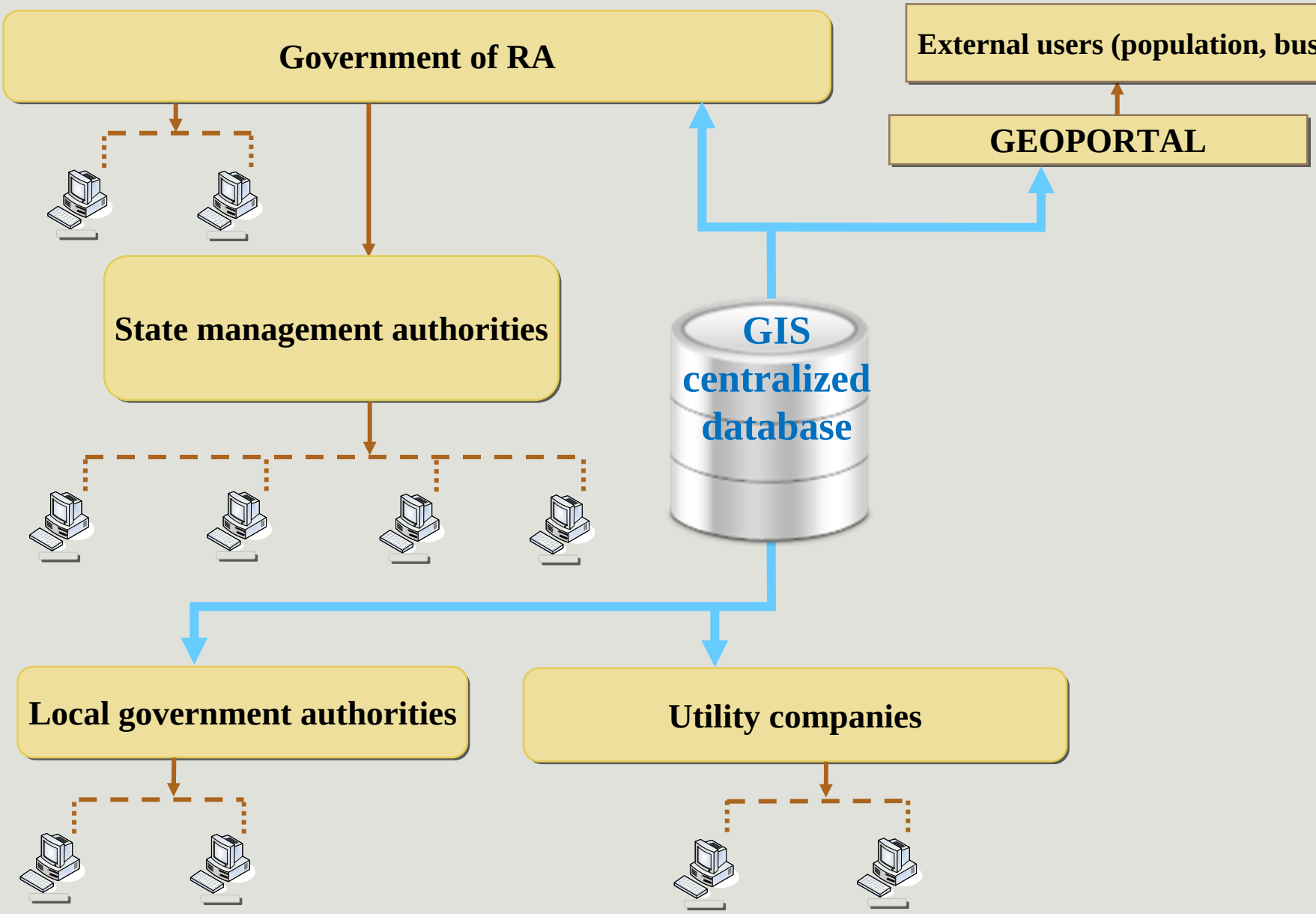
The basic GIS in the Republic of Armenia has three levels

State

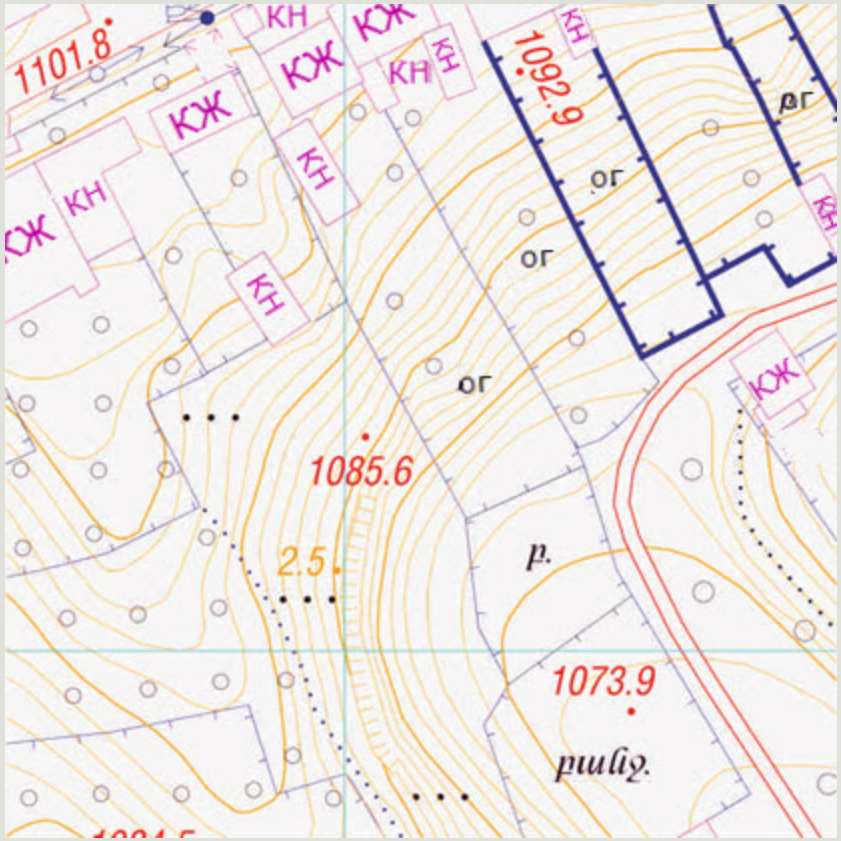
Regional

Municipal

Structure of geoinformation systems



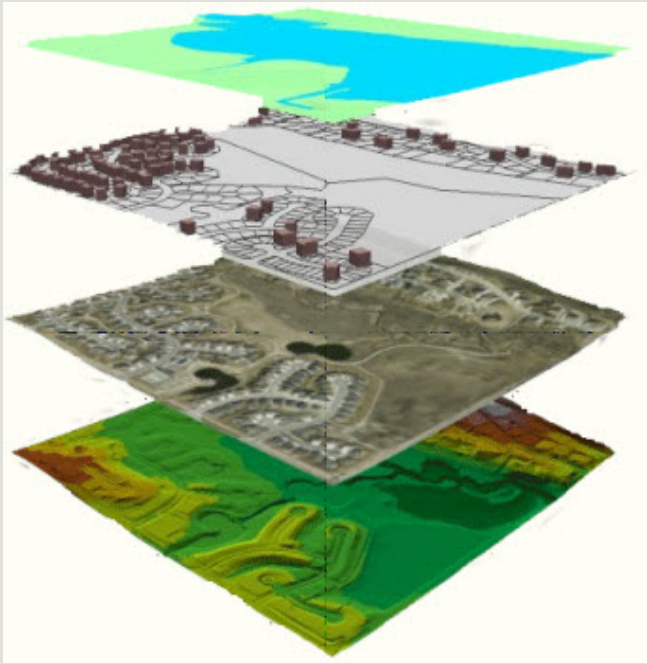
Both cadaster maps of 1:500 scale and topographic maps of 1:2000 scale can form the cartographic basis.



The architecture of the graphic part of basic GIS consists of 6 groups, 16 subgroups and 69 layers.

Groups

1. Administrative boundaries of RA
2. Geographic names of RA
3. Real estate of RA
4. Hydrography of RA
5. Relief of RA
6. Line infrastructures of RA



Subgroups

1. Mathematic basis
2. Geodetic points
3. Buildings
4. Railway
5. Railway structures
6. Roads
7. Road structures
8. Hydrography
9. Hydrographic structures
10. Water pipes and sewerage system
11. Communications
12. Electricity transmission lines
13. Relief
14. Vegetation
15. Legends and annotation
16. Cadaster

6. Line infrastructures

Transport infrastructure

Roads

Type	Meaning	Coverage	Width of passing part (m)	Number of opposite directions	Total width	Name	Area
Avenue	Local road	Asphalt	12.5	2	12	Ave. Komitas	68540.011
Pavement	Part of local road	Asphalt				Str. Moskovyan	81.744

Road structures L

Type	Length (m)	Width (m)	Height (m)	Lifting capacity (t)	Material
Road bridge	54	18	38	100	Reinforced concrete

Road structures P

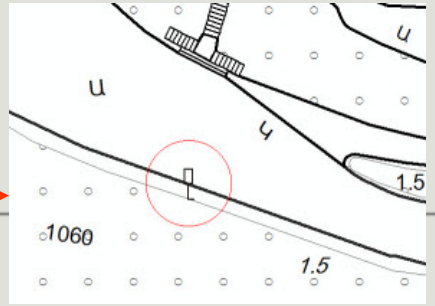
Type	Length (m)	Width (m)	Height (m)	Lifting capacity (t)	Material
Tunnel overpass	30	12	5	50	Reinforced concrete

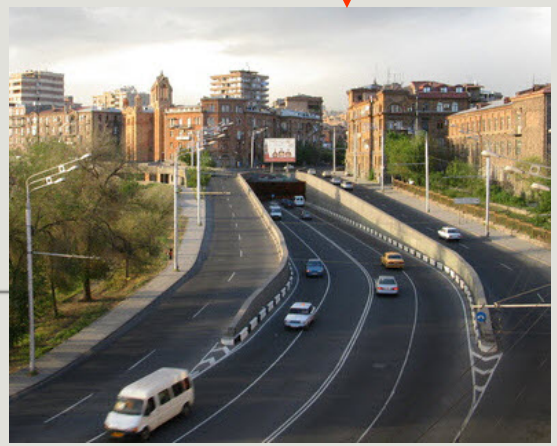
Road network (Pol.)

Type	Width (m)	Coverage
Pavement	1.5	Soil

Road structures L

Type	Height (m)	Material
Advertisement banner	6	Metal





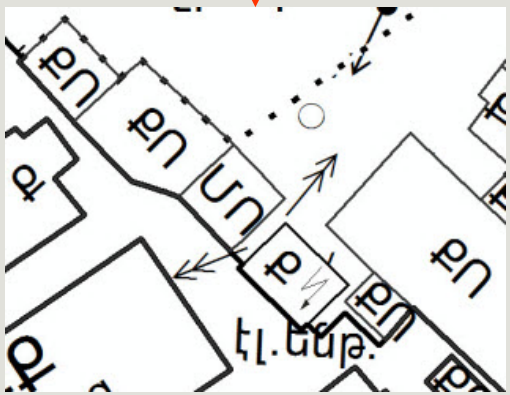
Electric transmission lines and structures

Electric transmission lines				
Type	Type of voltage	Number of air lines	Number of cables	Voltage (B)
Underground electric cable	High voltage lines		3	10000
Above-group electric lines	High voltage lines not on built territory	6		35000

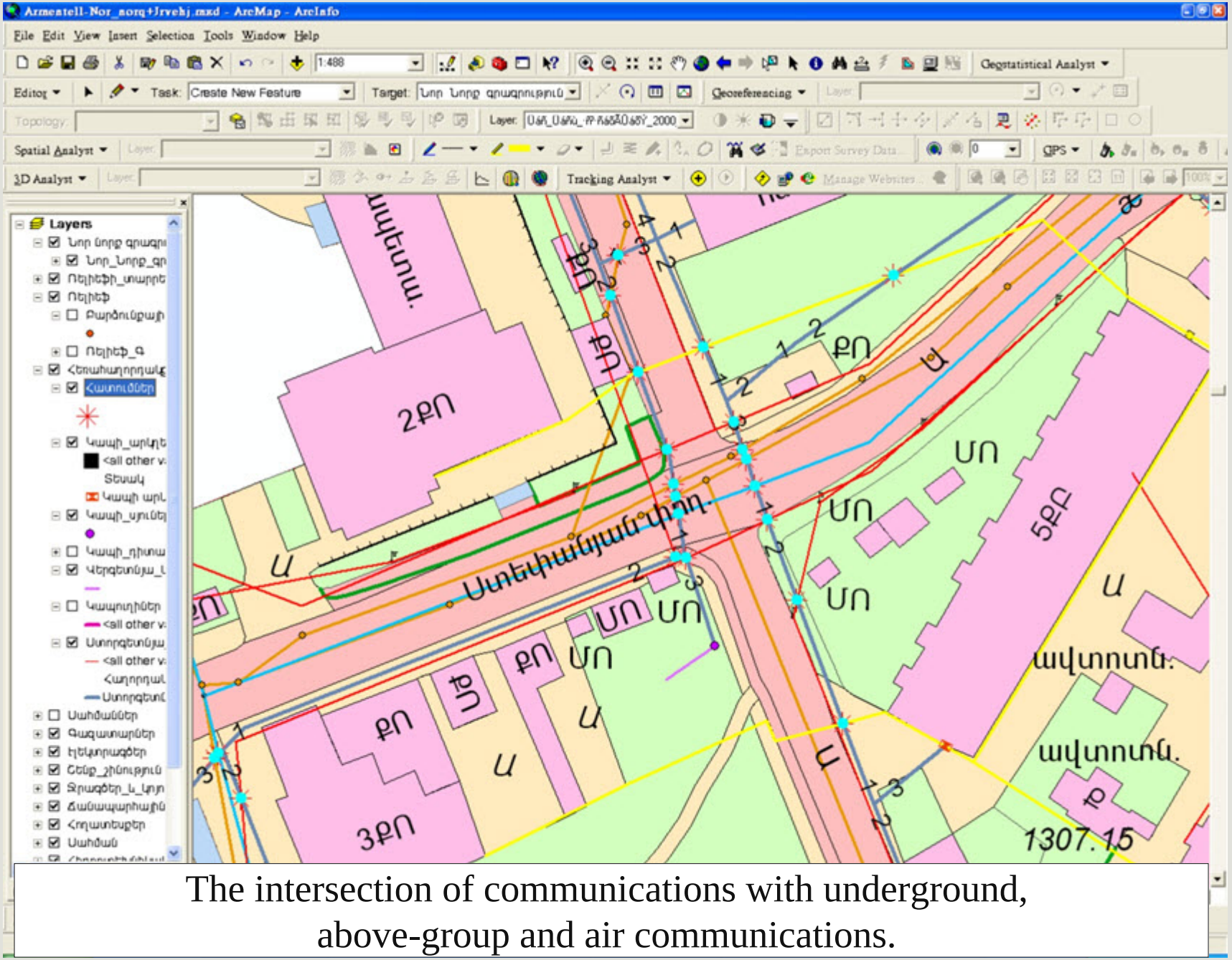
Eletric line structures					
Type	Diameter (mm)	Depth (m)	Height (m)	Qty	Material
Undergroup pipe	215	1.3		3	Asbestos

Eletric line structures (T)	
Type	Height (m)
Metalic girder	22

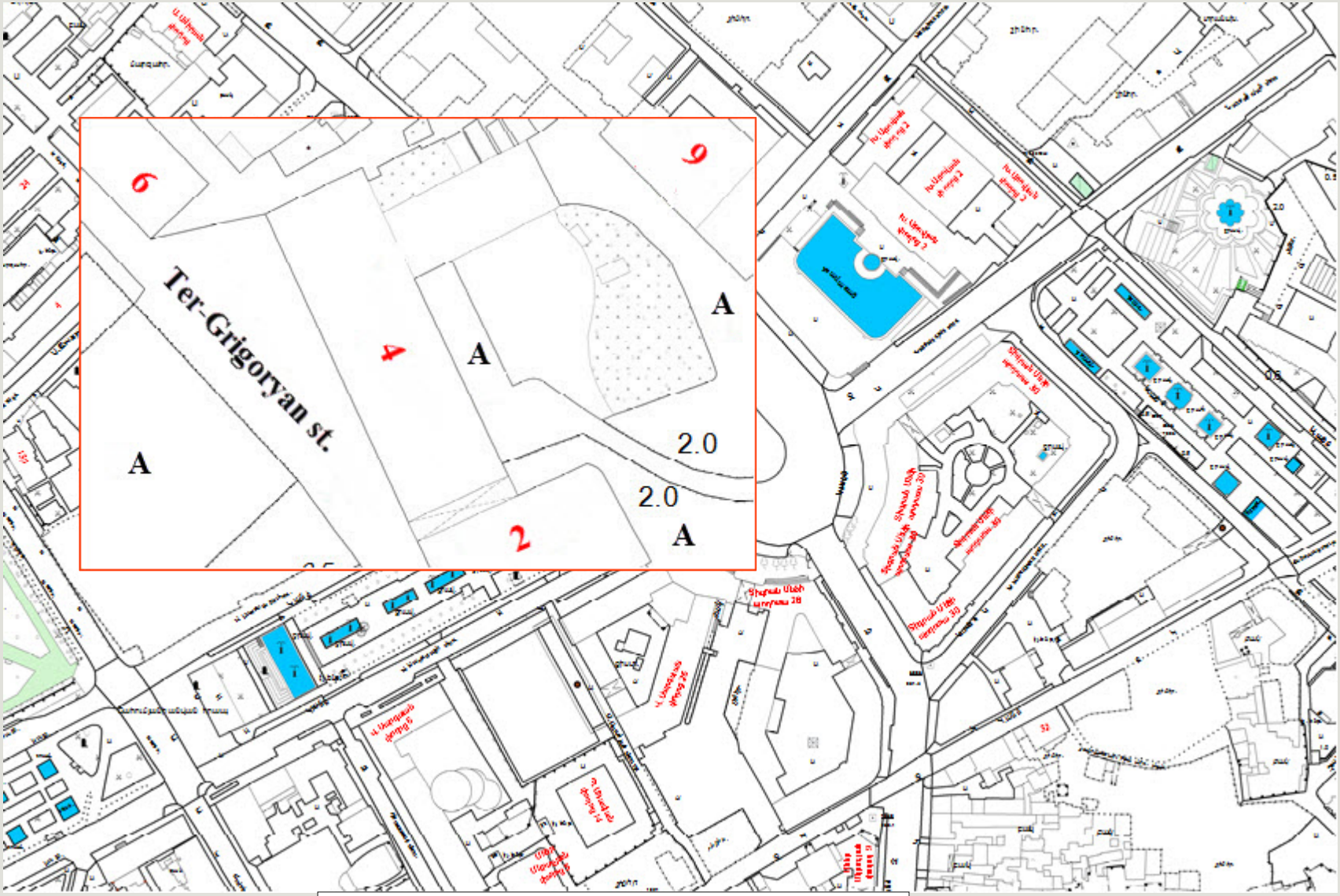
Symbols for electricity
Type
Symbol for electricity



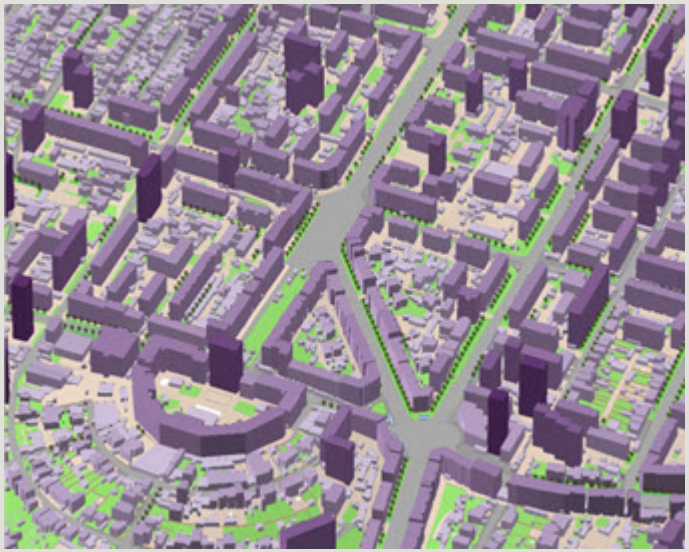
GIS also orthophotos, derived from aerophotos and space remote sensing.

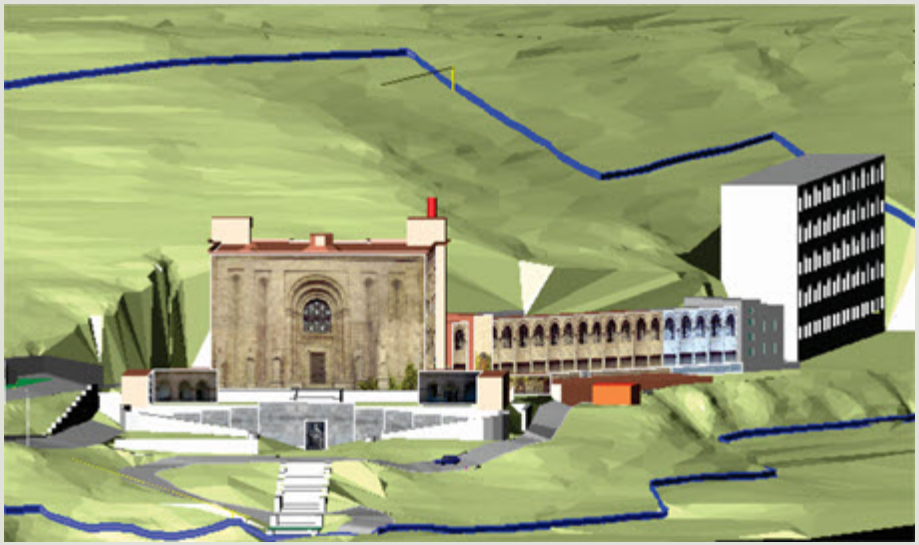


The intersection of communications with underground, above-group and air communications.



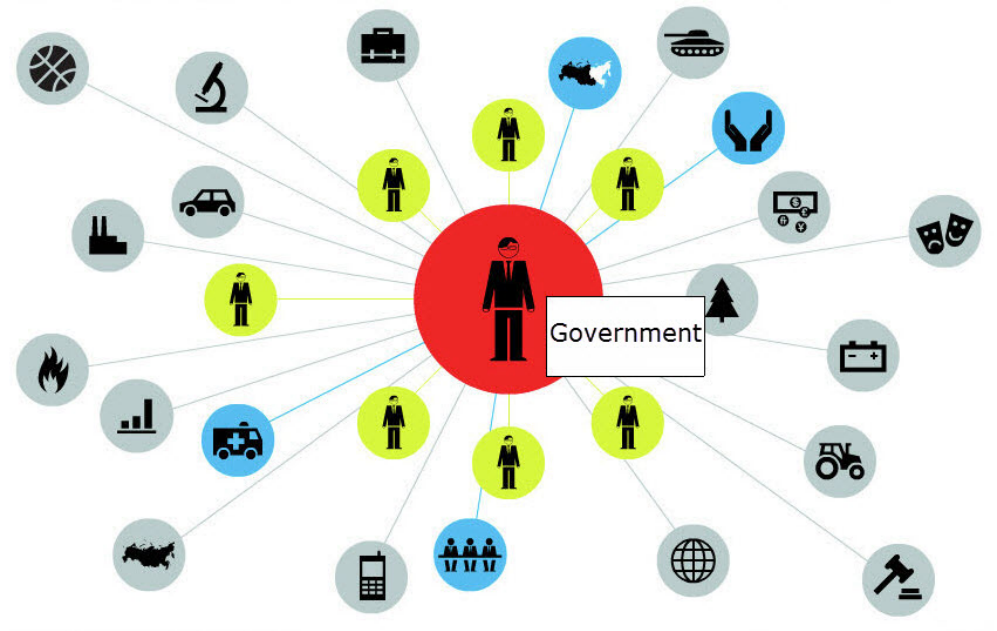
Information on addresses





3D modelling on the basis of geoinformation map

Modern GIS contributes:



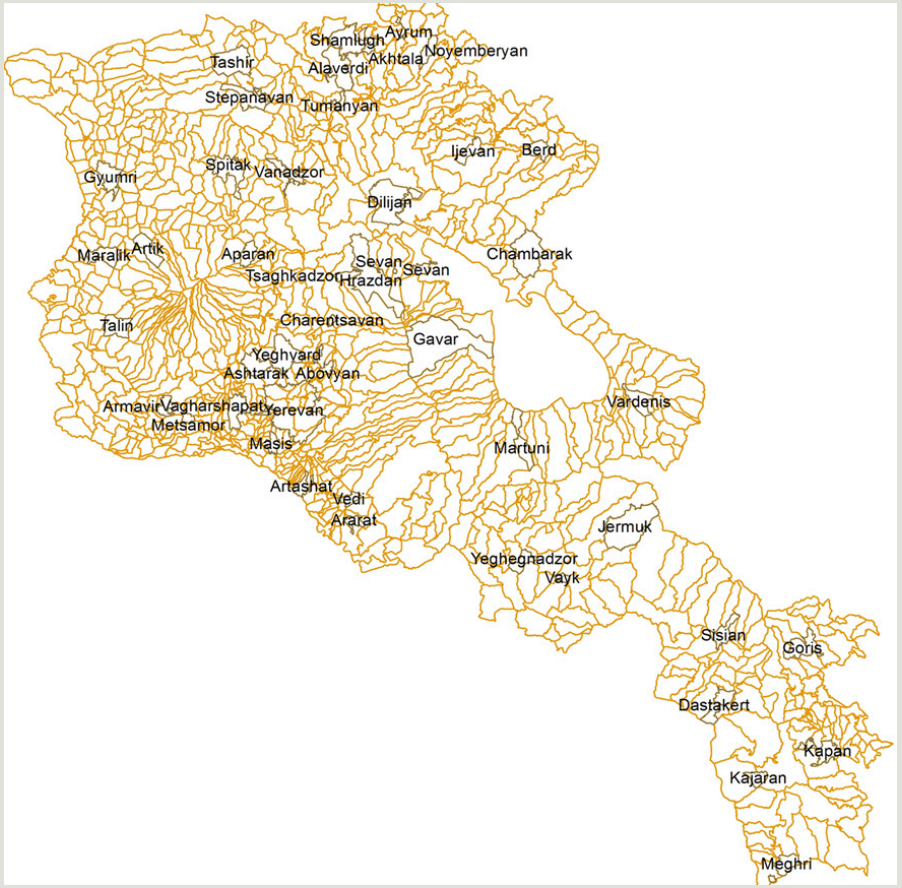
1. **To the Armenian Government:**

- In the development of the regions and communities, as well as affords opportunities for the elaboration of an efficient economic policy,
- In quick and optimal decision-making in case of emergencies,
- In the elaboration and introduction of State town-planning cadaster,
- In the elaboration and introduction of road passports and traffic management system,
- In the continuous provision of comprehensive information, necessary to State authorities and society, as well as in the increase of quickness of information availability.

- In the establishment and development of navigation systems,
- In the realization of “Open Government“ project,
- In the establishment of ecological GIS which provide with huge advantages and opportunities for the comprehensive ecological analysis of the situation,
- In the development of information technologies on a higher-quality level,
- In the projection, planning and monitoring of harvest and estimate of losses.

2. To the Armenian communities:

- In the realization of efficient local governance and territorial management of administrative regions,
- In the establishment of land plot management scheme,
- Property tax collection optimization,
- In the establishment of town-planning information systems in regions and municipalities,
- In the decrease of time for the receipt of construction permits,
- In the increase of monitoring over town-planning normatives,
- In the design, co-ordination, automation and increase of management quality of transportation system,



3. To the Armenian companies, owning or managing underground and above-group communications

- In online work on the map, viewing, amending and analyzing data. It should be mentioned that all respective entities can work on the same map simultaneously,
- In the projection of the development of networks, planning of repairs and checkups.
- In the establishment of the conditions for the increase of quality, integrity and efficiency of services, provided to the population and organizations,
- In the registration works of communications and related structures (in case of registration the communication line will have a certificate with the rights, attached to it, which will afford the opportunity to avoid miscellaneous legal issues in the future),
- In the inventory count of underground and above-ground communication lines,




Thank you for attention