



FIG WORKING WEEK 2019

22-26 April, Hanoi, Vietnam

"Geospatial Information for a Smarter Life and Environmental Resilience"

*Presented at the FIG Working Week 2019,
April 22-26, 2019 in Hanoi, Vietnam*



Integrated application of separately managed GIS resources for land administration

Masaru KAIDZU

Com.7,JFS

Japan

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Japanese NSDI

- Basic Act on the Advancement of Utilizing Geospatial Information (2007)
 - Positional reference
 - GEONET (GNSS CORS with 1300 stations)
 - Unified precise coordinates
 - FGD (Seamless Vector map as reference of position)
- Data and Tools
 - e-STAT
 - Geospatial Information Center

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e-STAT

e-Stat
Portal Site of Official Statistics of Japan

Statistics of Japan
e-Stat is a portal site for Japanese Government Statistics.

Search for statistics Others

In order to perform system work, the service may be stopped at the following date and time. ·Feb 10, 2019 (Sun) 01:00 am to 04:00 am : We will stop the service ·Feb 11, 2019 (Mon) 09:00 am to 05:00 pm : Multiple stops may occur for several minutes

Search for statistics

- Search from database
- Search from file
- Search by theme
- Search by organization
- Search by areas

Search by keyword Example : Census Search

- Statistics GIS
- API function
- Statistical LOD
- Statistics dashboard

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Portal Site of Official Statistics of Japan

https://www.e-stat.go.jp/en

2019-02-01 Ministry of Internal Affairs and Communications Family Income and Expenditure Survey File

2019-02-01 Ministry of Internal Affairs and Communications Labour Force Survey DB File

2019-01-31 Ministry of Internal Affairs and Communications Report on Internal Migration in Japan DB File

2019-01-31 Ministry of Internal Affairs and Communications Monthly Survey on Service Industries DB File

2019-01-31 Ministry of Land, Infrastructure, Transport and Tourism Building Starts File

2019-01-30 Ministry of Internal Affairs and Communications Economic Census for Business Activity File

2019-01-30 Ministry of Finance of Japan

2019-02-07 08:50 Ministry of Finance of Japan Trade Statistics Jan. 2019(First 20 days Provisional)

2019-02-20 08:50 Ministry of Finance of Japan Trade Statistics Jan. 2019(Provisional)

2019-02-27 08:50 Ministry of Finance of Japan Trade Statistics Feb. 2019(First 10 days Provisional)

2019-02-27 09:30 Ministry of Finance of Japan Trade Statistics Jan. 2019(Export: Detailed: Import: 9-digit Provisional)

2019-02-27 09:30 Ministry of Finance of Japan Other Trade Related Statistics Jan. 2019(Detailed)

2019-02-27 09:30 Ministry of Finance of Japan Statistics on Arrival of Aircraft & Entrance of Vessels Jan. 2019(Detailed)

2019-03 Ministry of Finance of Japan Trade Statistics 2018(Fixed)

1	prefecture area	17
2	dairy	11
3	area	10
4	fish	10
5	foreign	10
6	tohoku	9
7	education	8
8	school uniform	7
9	commute	6
10	death	5

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An example of e-STAT data -Statistics from Economic census-

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
1	1	平成26年経済センサス・基礎調査 確報集計 町丁・大字別集計															
2	2	第1表 経営組織（2区分）、産業（中分類）・従業者規模（6区分）別全事業所数及び男女別従業者数一															
3	3																
4	4																
5	5	sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00 sanM1.00															
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8	8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0															
9	9	J 金融業, 保険業 62 銀行業 63 協同組織金融業 64 貸金業, クレジット 65 金融商品取引業, 信託業															
10	10	都道府県	経営組織		市区町村及び町丁・大字	事業所数	従業者数	事業所数	従業者数	事業所数	従業者数	事業所数	従業者数	事業所数	従業者数	事業所数	従業者数
11	11	東京都	総数	1	東京都	87	1235	12	370	20	351	8	37	4	33		
12	12	1	県	総数	1	.11E+10	-	-	-	-	-	-	-	-	-	-	-
13	13	1	県	総数	1	4E+08	-	-	-	-	-	-	-	-	-	-	-
14	14	1	県	総数	1	4E+08	-	-	-	-	-	-	-	-	-	-	-
15	15	1	県	総数	1	4E+09	-	-	-	-	-	-	-	-	-	-	-
16	16	1	県	総数	1	4E+09	-	-	-	-	-	-	-	-	-	-	-
17	17	1	県	総数	1	4E+09	1	4	-	-	-	-	-	-	-	-	-
18	18	1	県	総数	14101	4E+09	1	2	-	-	-	-	-	-	-	-	-
19	19	1	県	総数	14101	5.4E+09	1	5	-	-	-	-	-	-	-	-	-

Distribution of business – if we check temporal change, effect of development or regulations can be seen

We can map data through address.

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Geospatial Data Center



There actually exist many data in academic institutions or privately collected, owned data sets which are important, useful and of public interest.

Geospatial Data Center is established to be a gate way to access such datasets through public private partnership. Thus, some of the data sets are not free of charge.

Even so, it is a great advantage that we can access those data.

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Effort of Municipalities and Prefectural government

- Municipalities and prefectural government also act along NSDI act
- Nowadays we can find data related to local administration in their web site

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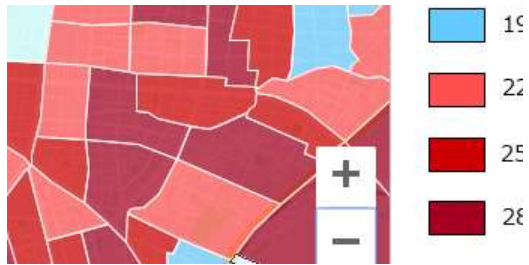
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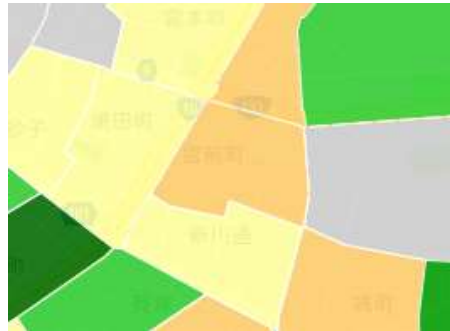
"Geospatial Information for a Smarter Life and Environmental Resilience"



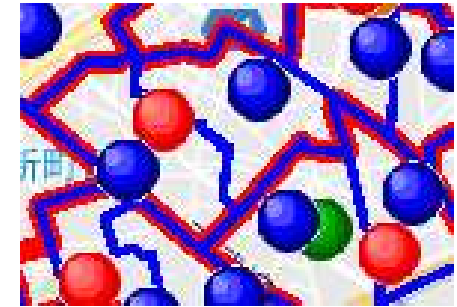
Example of accessible municipal data



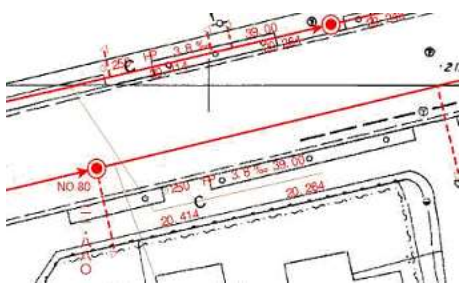
Percentage of senior residents



Population density



Primary and secondary schools and school area



Sewer map



Land price (spot and route)



Zoning map

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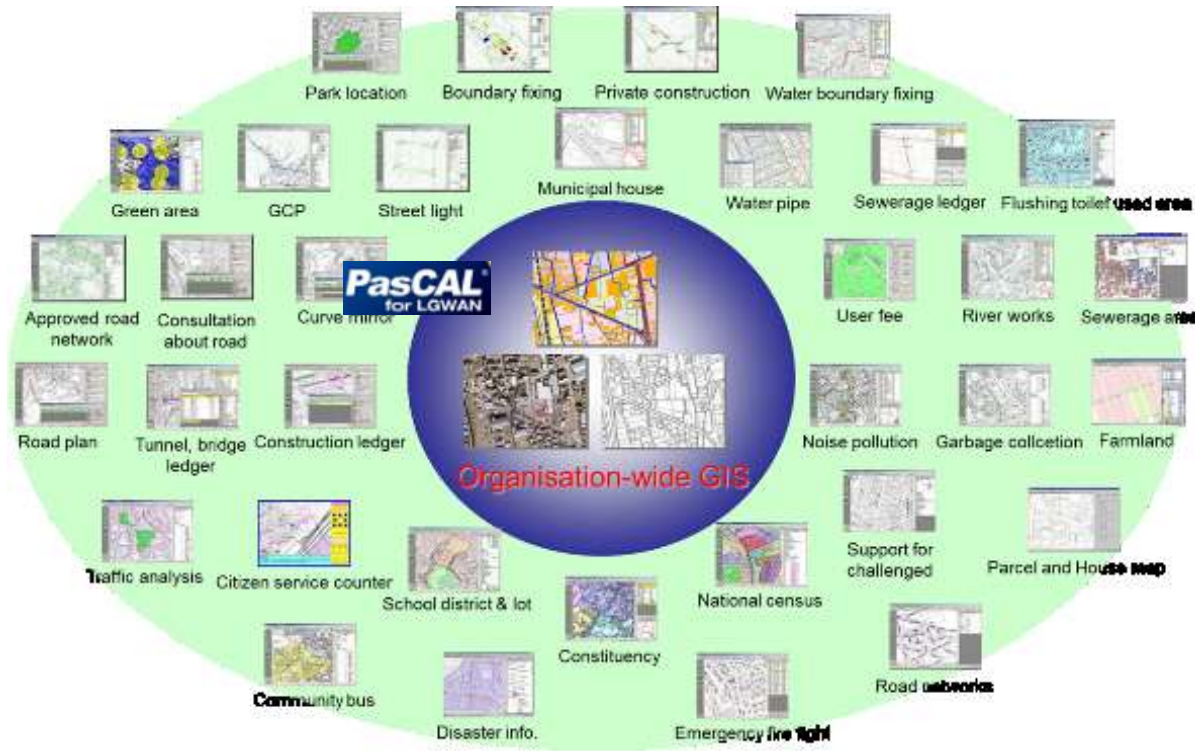
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Integrated application on platform on a secured WAN



After Pasco corporation

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Smart utilization of open data supported by NSDI

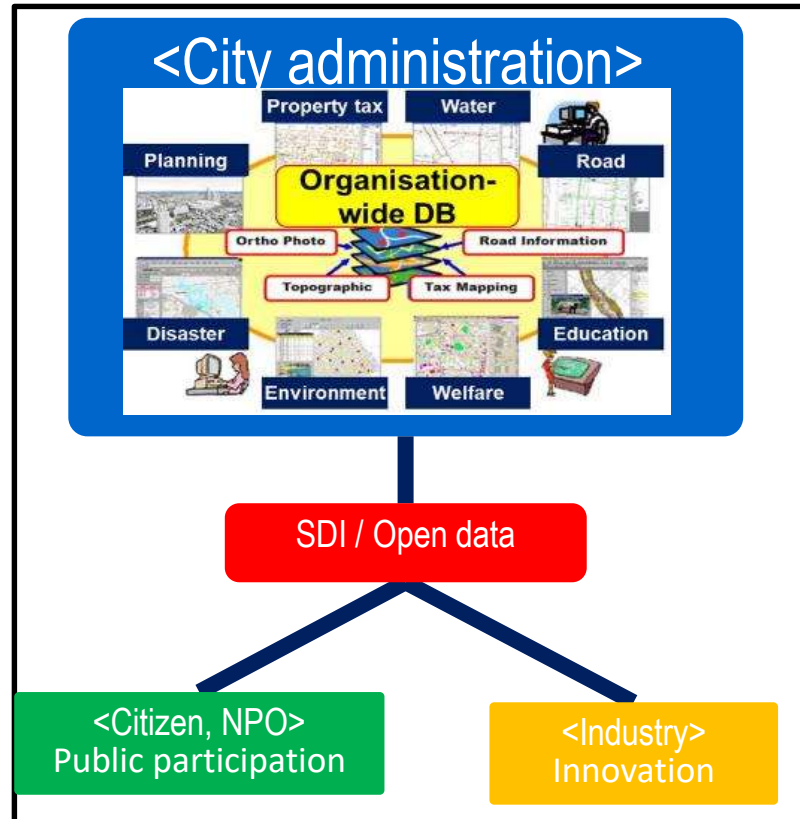
Increase performance of city administration

Multiple party participation

- Local government
- Industry
- Citizen, NPO

Sustainable system

- data production costs ↓
- unnecessary license fee ↓
- Share knowledge



After PASCO corporation

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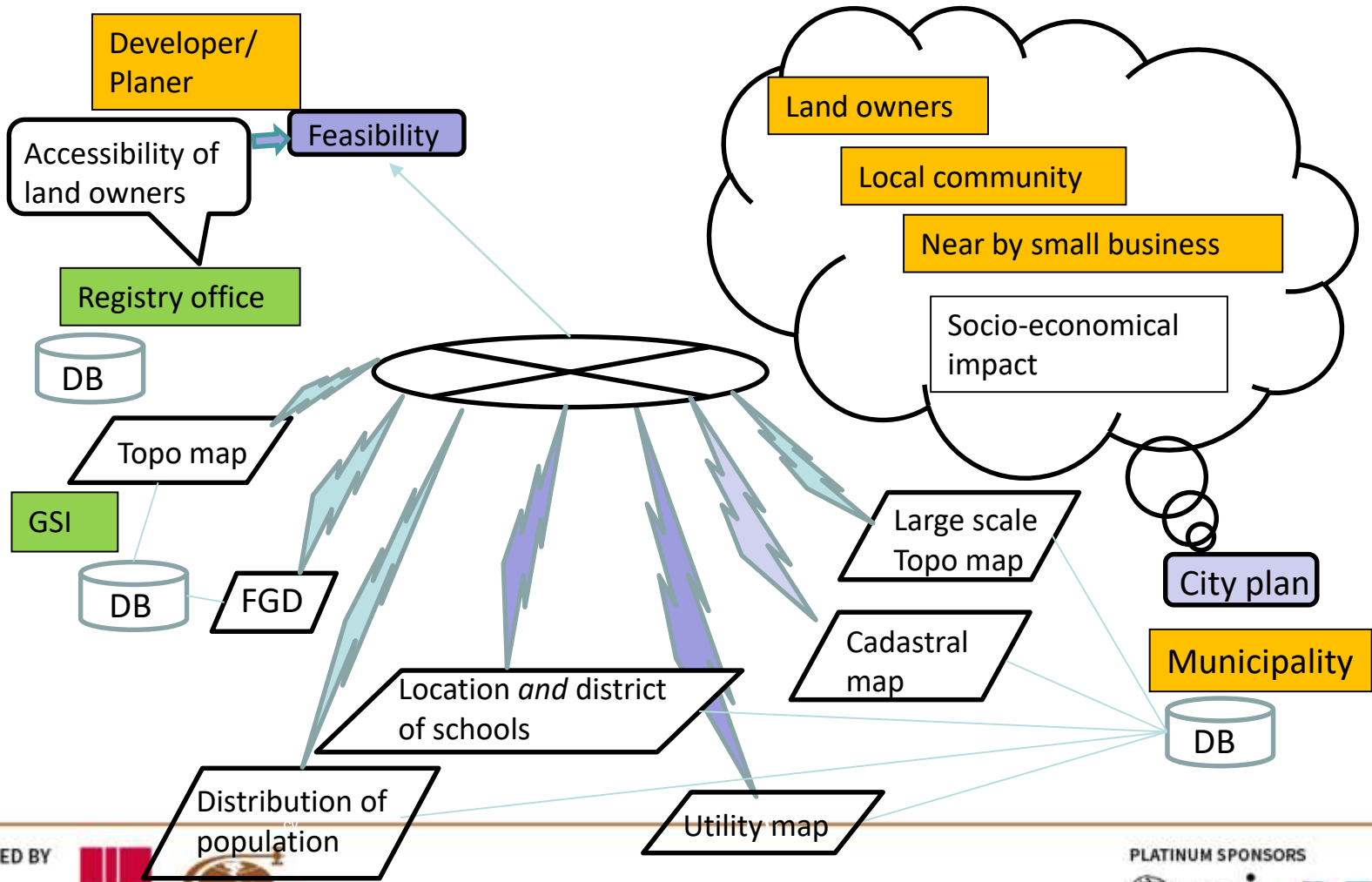


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Case study – High rise condominium –

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Case study – High rise condominium –

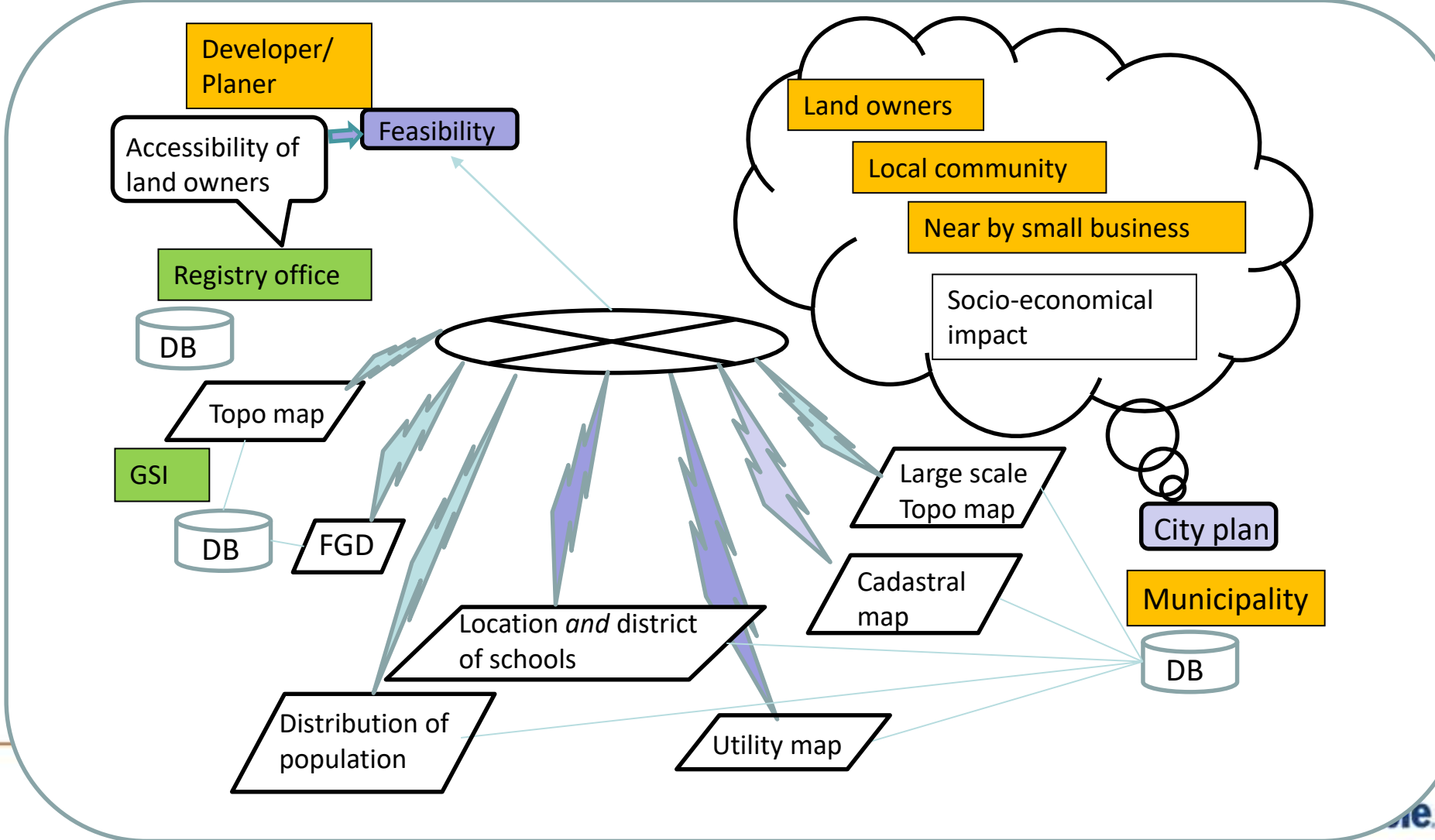




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Groups and their main concern

- Developer:
 - Smooth acquisition of land
 - Smooth release of product to market
 - Good sales and good reputation
- Municipality:
 - Convenient and active town
 - Increase of residence and increase of tax income
 - Capacity of utility
 - Capacity of schools
 - Public transportation

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continued

- Old resident: Change of wind field, especially strong wind caused by high rise building.
Shadow created by large building
Traffic congestion
- Small shops near by: Suck up customers by large scale commercial facility in new buildings
- New resident: Traffic congestion
Nursery

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Preparing explanation material

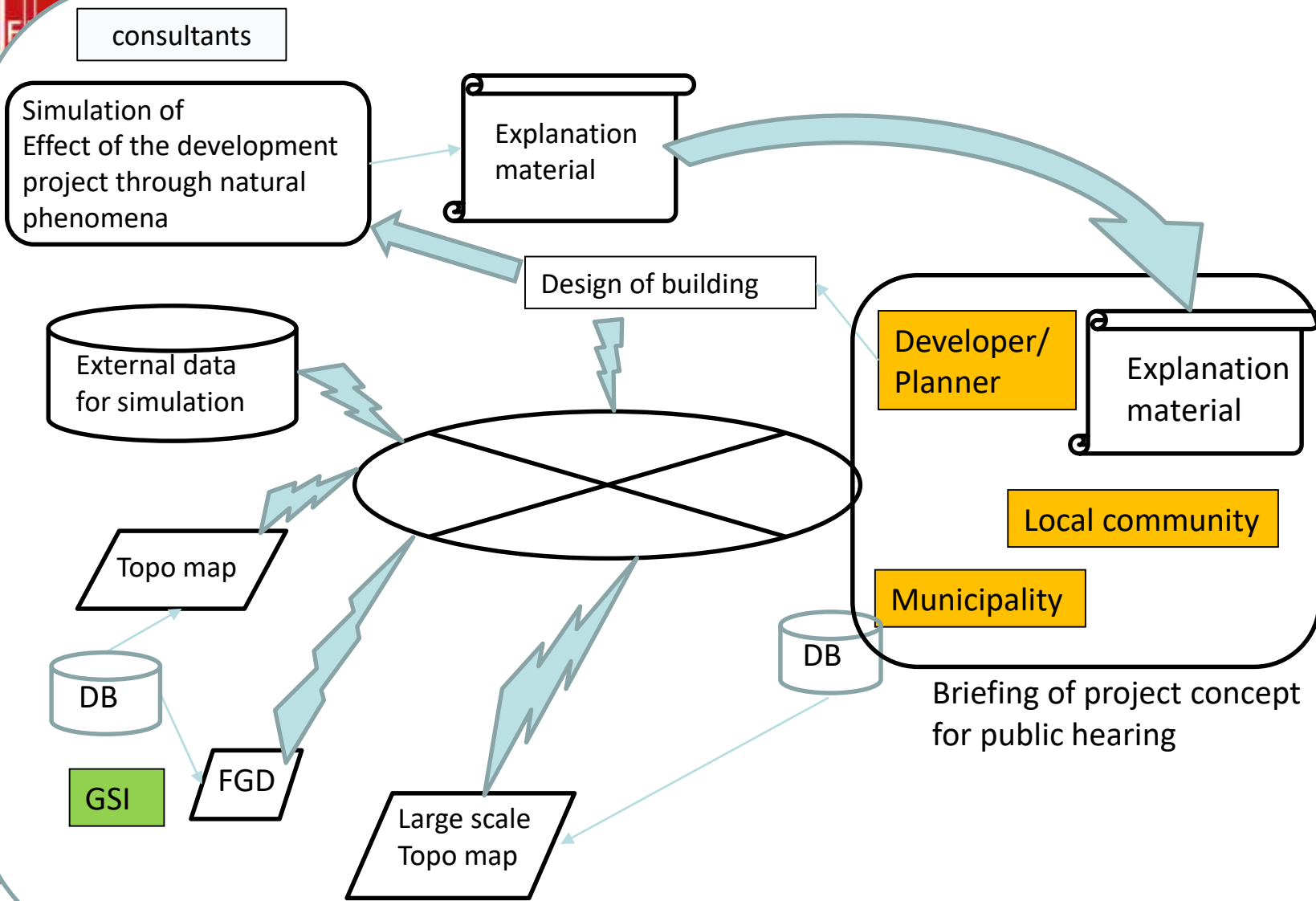




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SDI and Secured LAN ease Land Administration through integrated applications

Thank you

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