

Mariyam Mohamad
Malaysian Centre for Geospatial Data
Infrastructure (MaCGDI)
Ministry of Natural Resources and
Environment





SKOP TAKLIMAT

1

Pengenalan kepada
MaCGDI & MyGDI

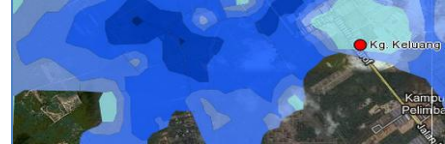
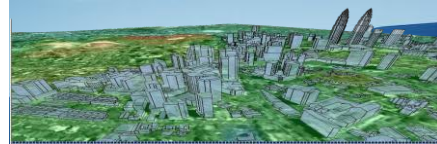
2

Pengurusan Maklumat
Geospatial

3

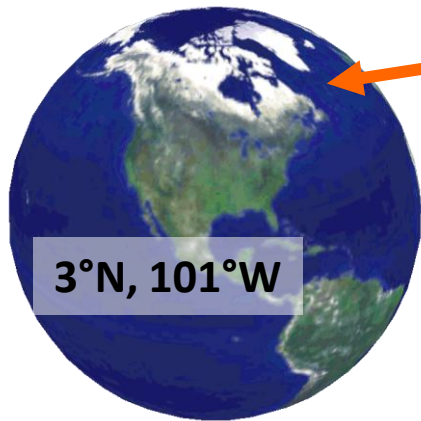
Hala Tuju Geospatial
Negara





Pengenalan - Geospatial Information

“Locational data of natural or artificial objects existing in space, including the space above ground, space under ground, space above water and space under water, and the data necessary for spatial identification and decision-making related thereto”

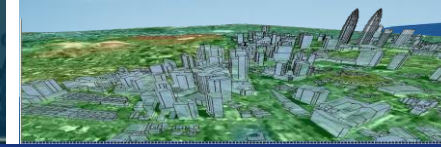


Where?



<i>Foll_no</i>	<i>St_no</i>	<i>St_name</i>
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030045044000000	47	BLAKE AVEI
030005035090000	14	MANITOU D
040016031000000	317	WELLINGTC
030050047000000	19	GRANDRIVE
030005037000000	1054	MCNABB ST
060004060000000	150	PITTSBURG
030050046000000	13	GRANDRIVE
040014045000000	382	JOHN STRE
010062065000000	52	PARKINWO
030018079000000	25	PEACH DRI
010050002540000	89	ROBIN STR

What?



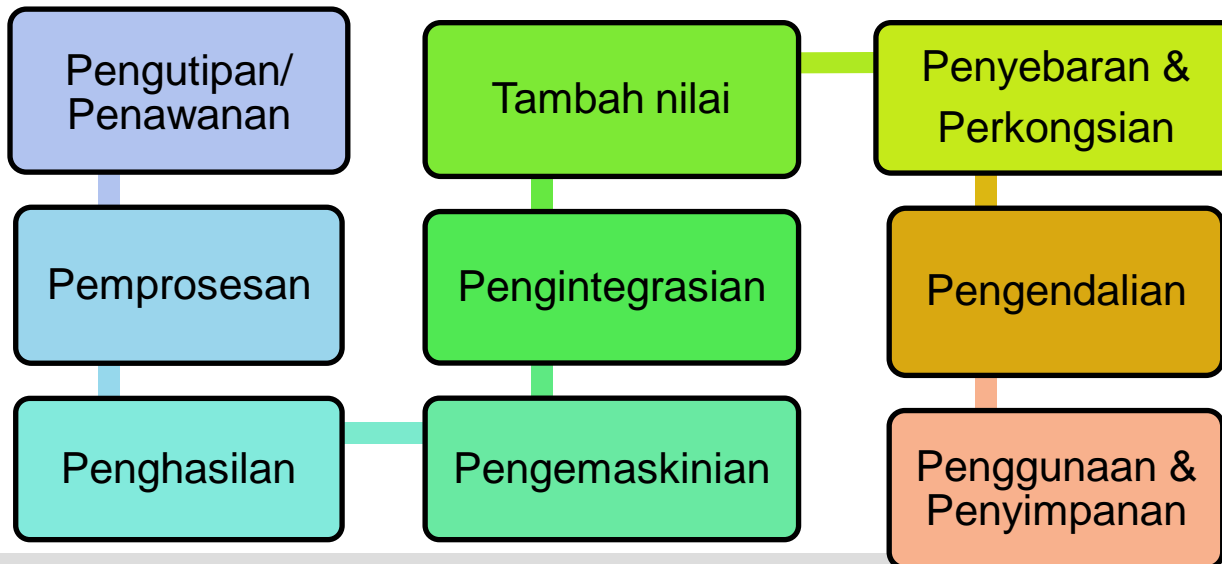
PENGENALAN

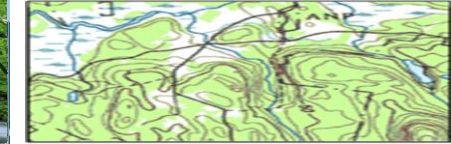
PENGURUSAN MAKLUMAT GEOSPATIAL

encompasses the management, leadership, structures and practices required for the successful operation of GIS within an entity, nationally, regionally or globally.

(Source: UN-GGIM)

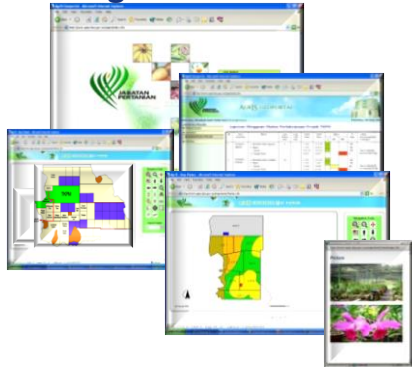
AKTIVITI GEOSPATIAL





Lots of Information From Many Sources

Agriculture



Land Management



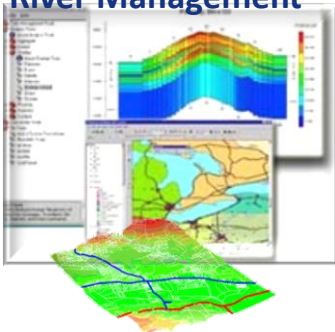
Transportation



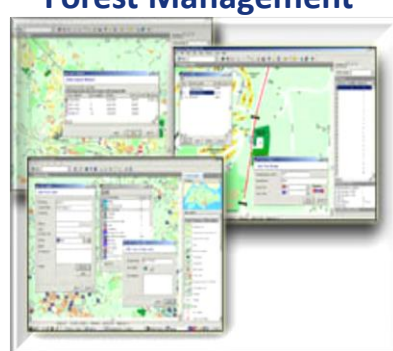
Infostructure



River Management



Forest Management



Property Management

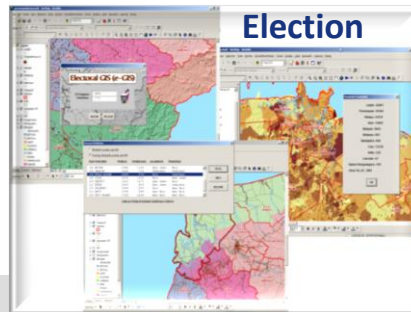


Environment

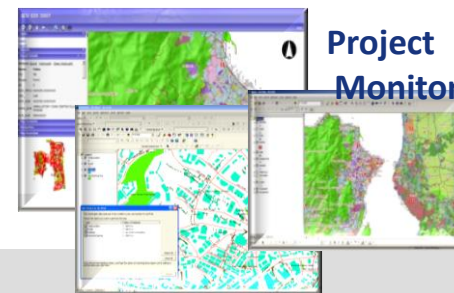


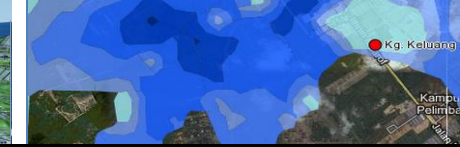
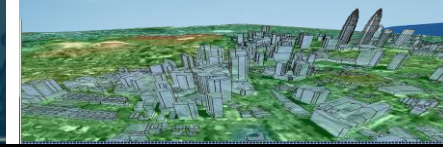
Utility

Election

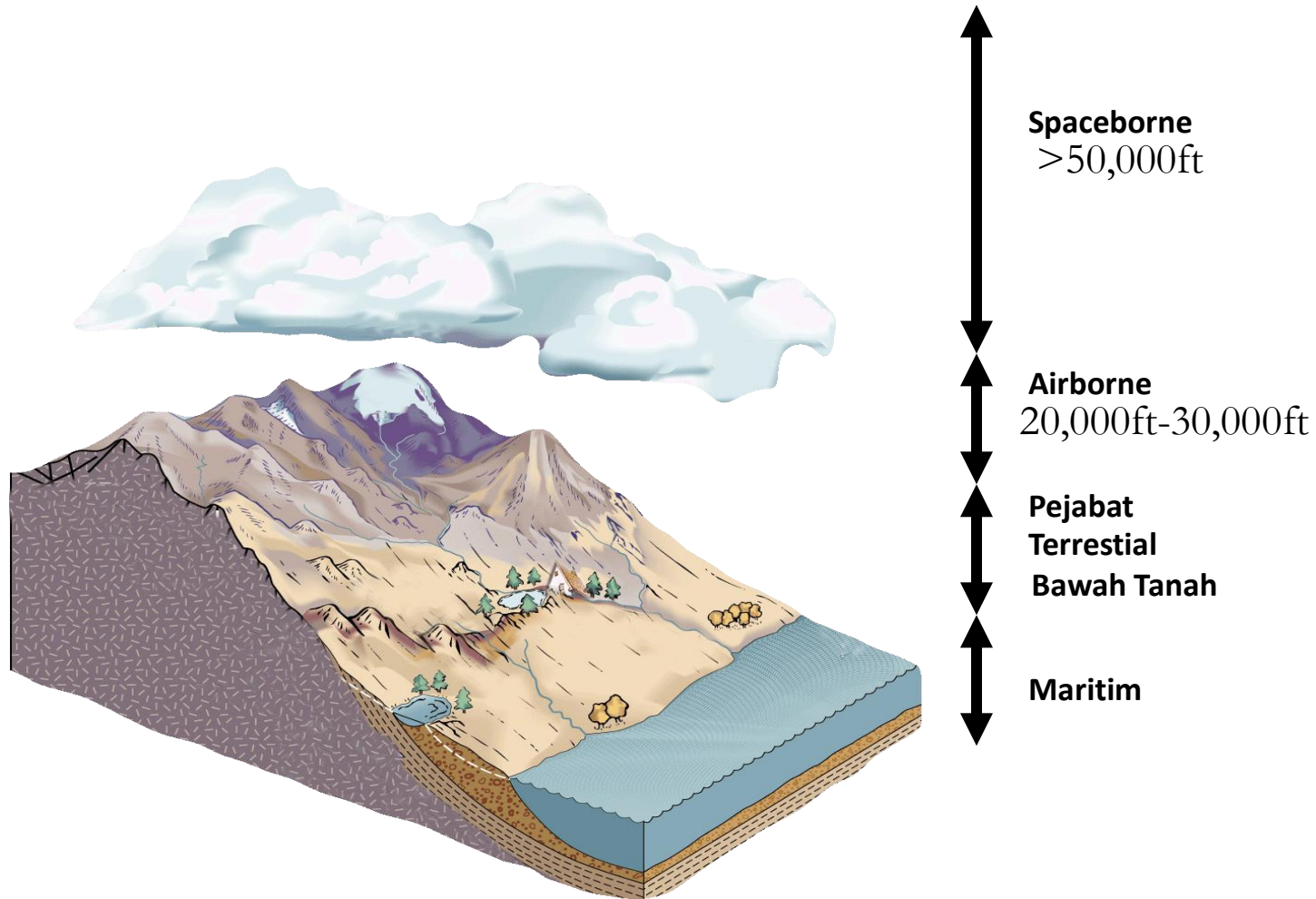


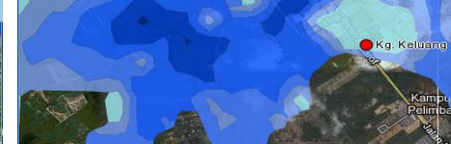
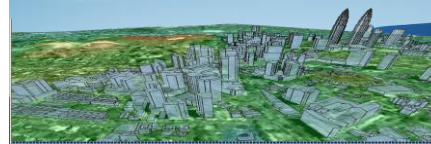
Project Monitoring



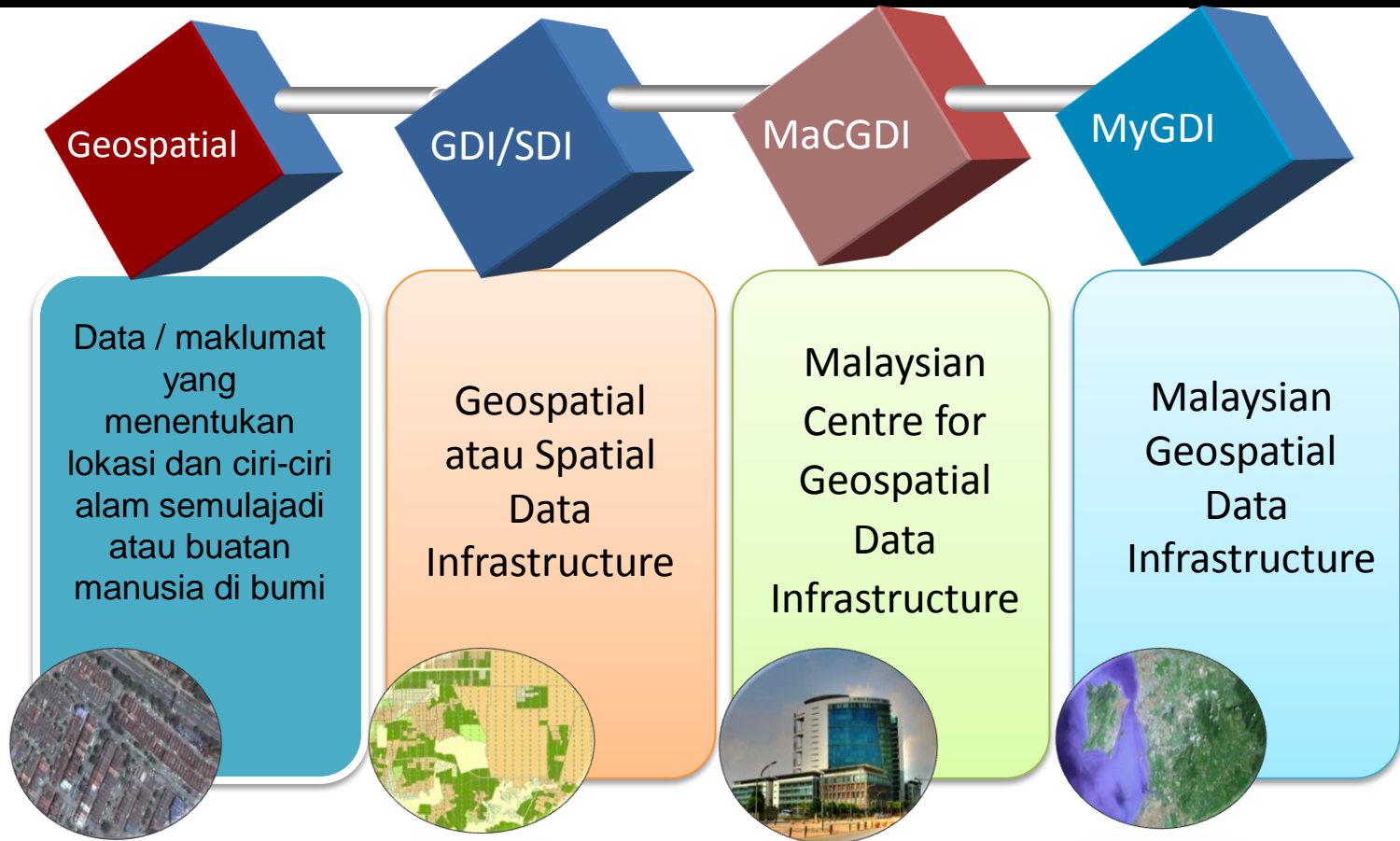


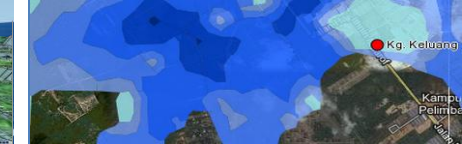
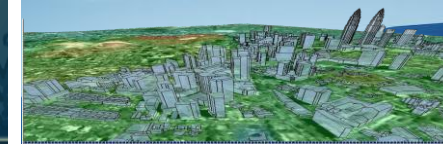
Teknologi Penawanan Data



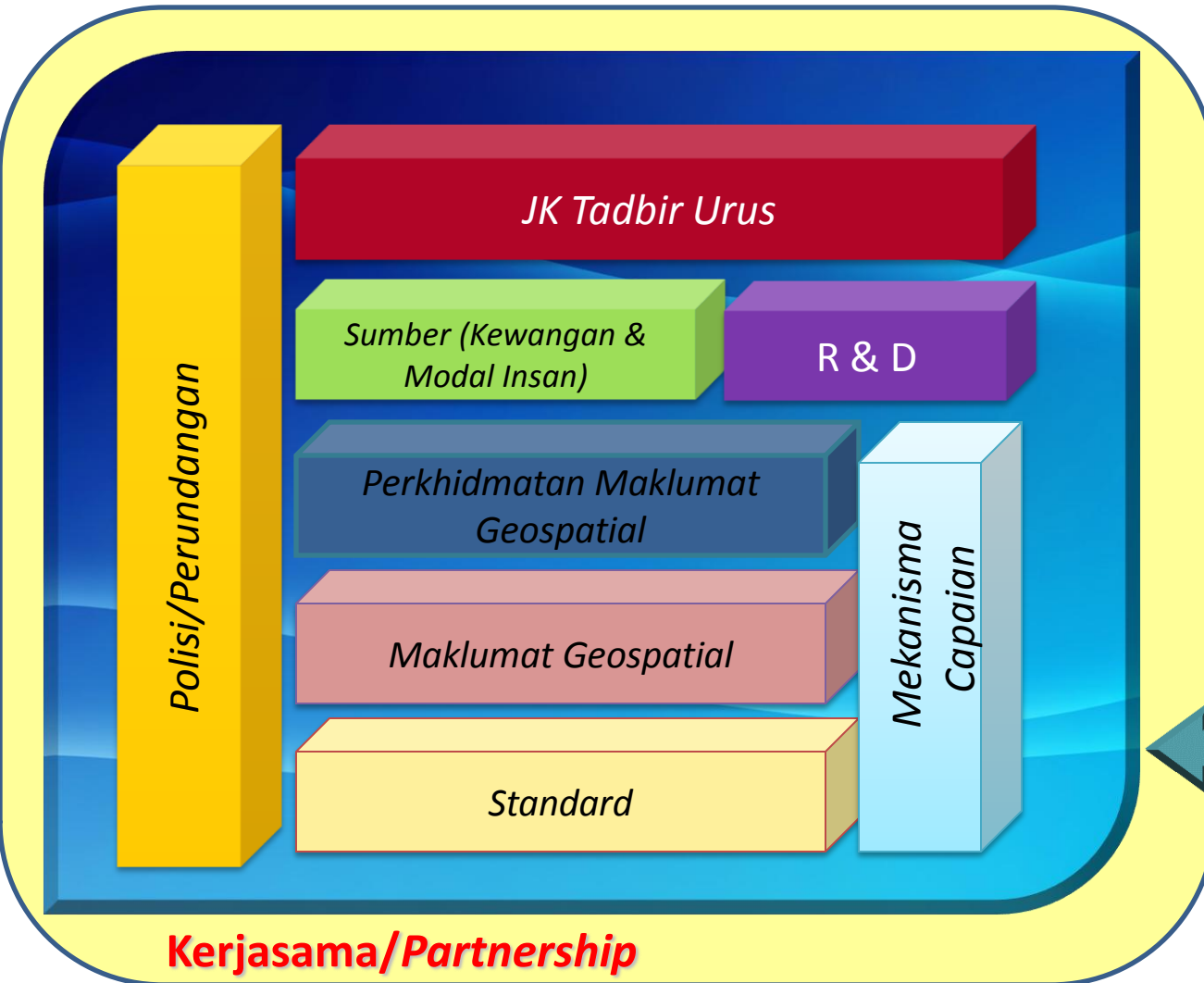


MaCGDI vs MyGDI





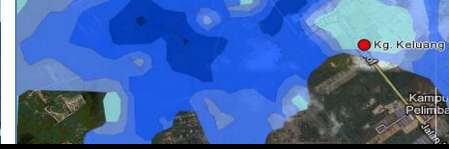
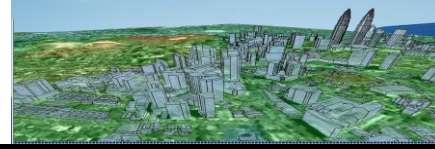
KOMPONEN MALAYSIA GEOSPATIAL DATA INFRASTRUCTURE (MyGDI)



*Faedah sosial,
ekonomi dan
alam sekitar*



*Perkongsian dan
penggunaan
maklumat
geospatal*



PENKELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

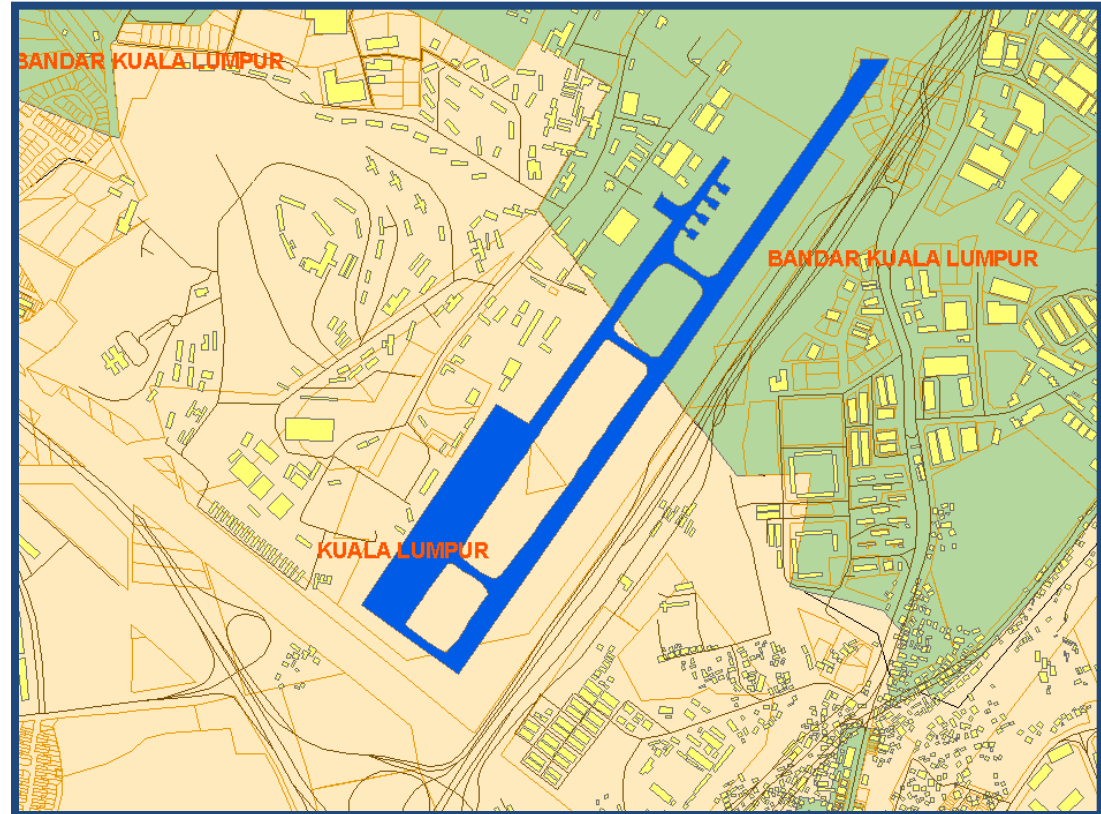
AERONAUTICAL

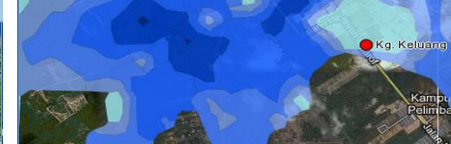
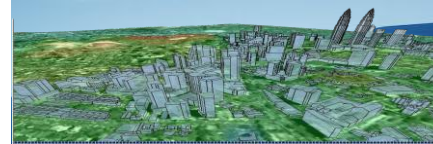
Data Custodian:

DCA,JKR,JUPEM,JTU,JTS

Contoh lapisan data:

- Runway
Lokasi landasan kapal terbang yang terdapat di Malaysia
- Airfield
Lokasi lapangan terbang yang terdapat di Semenanjung Malaysia





PENGGELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

DEMARCATATION

Data Custodian:

JUPEM,JPBD,JPPH,PBT,JKPTG

Contoh lapisan data:

-State_Coverage

Klasifikasi sempadan negeri-negeri yang terdapat di Semenanjung Malaysia

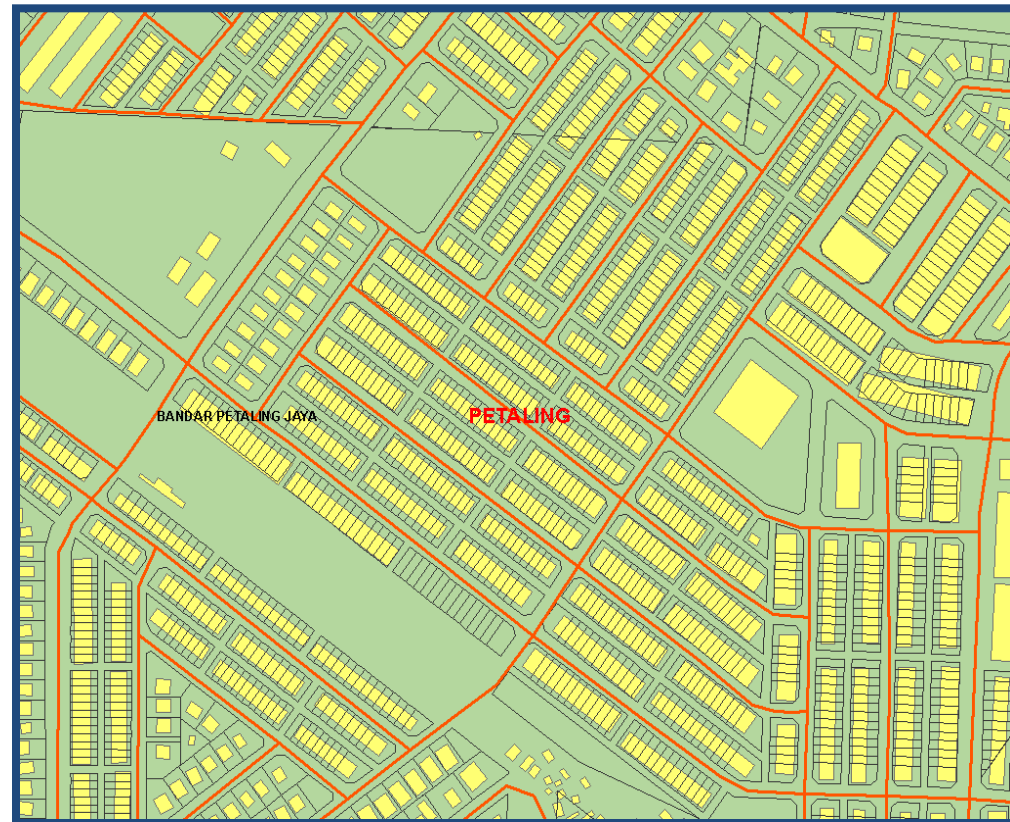
- District_or

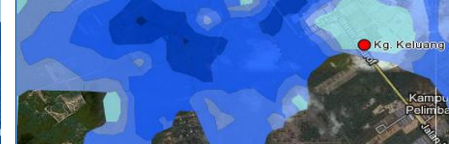
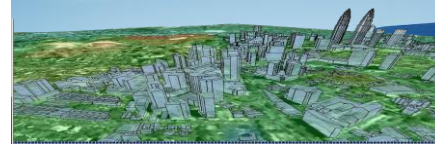
Jajahan_Coverage_Administrative

Klasifikasi sempadan daerah dan jajahan yang terdapat di Semenanjung Malaysia

- Land_Parcel_or_Lot

Taburan lot kadaster yang terdapat di Semenanjung Malaysia





PENKELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

HYDROGRAPHY

Data Custodian:

PHN, JUPEM, JPS, JTLM

Contoh lapisan data:

- River

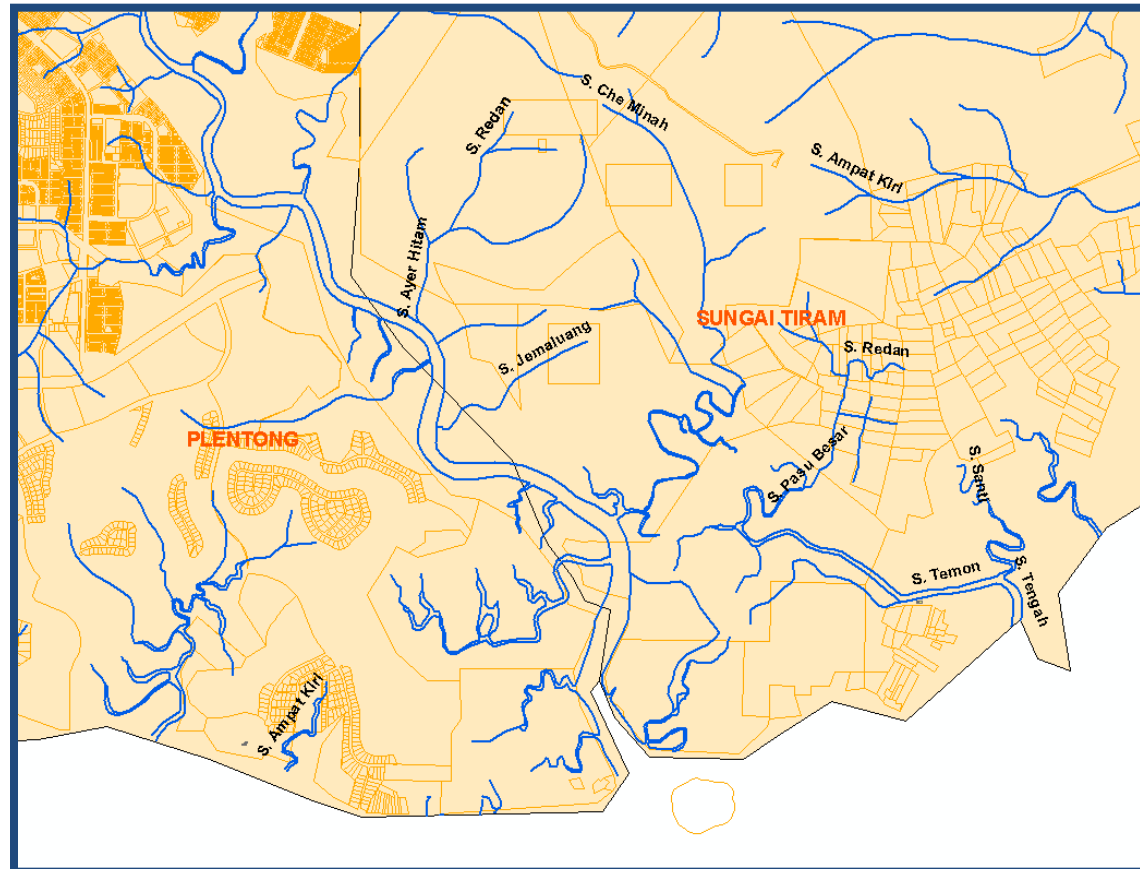
Taburan jaringan sungai yang terdapat di Semenanjung Malaysia

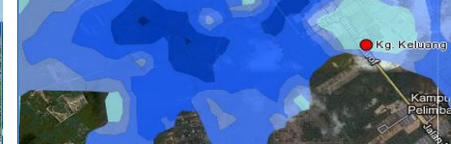
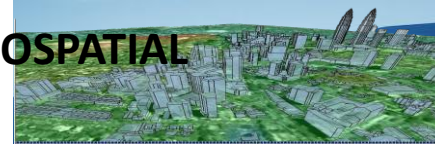
-Lake

Taburan tasik-tasik yang terdapat di Semenanjung Malaysia

- Waterfall

Lokasi air terjun yang terdapat di Semenanjung Malaysia





PENKELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

HYPSOGRAPHY

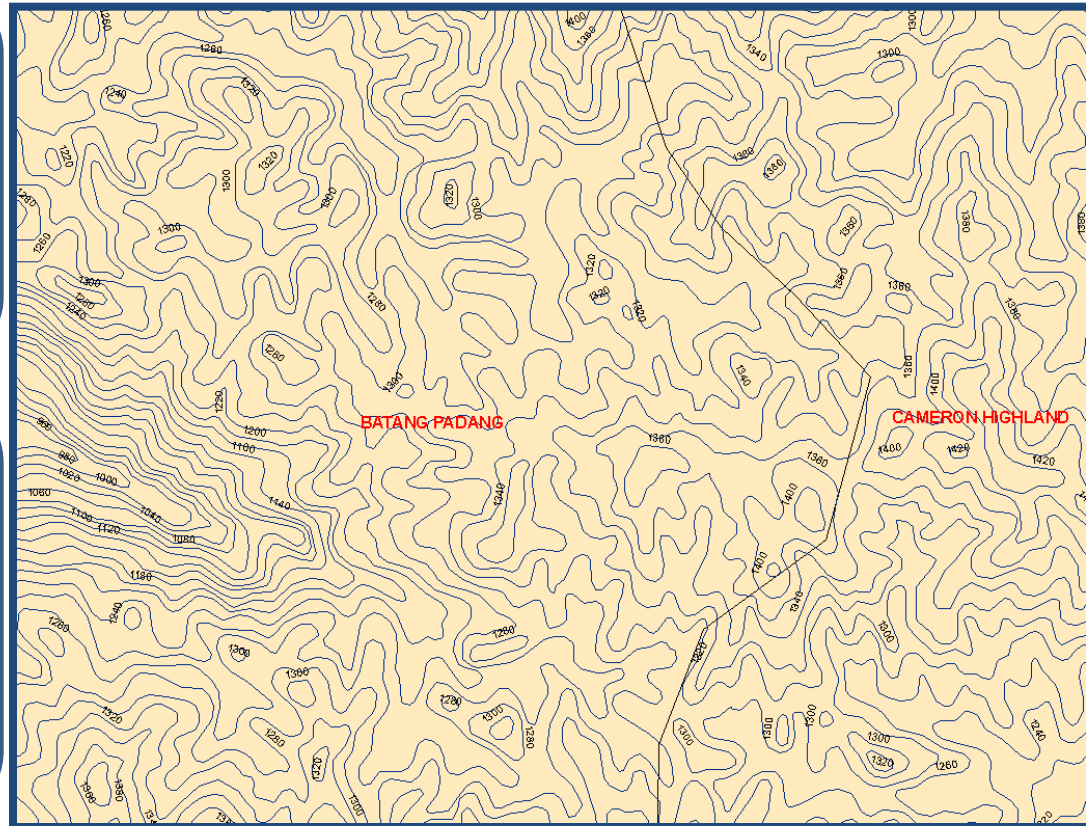
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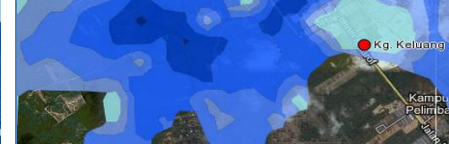
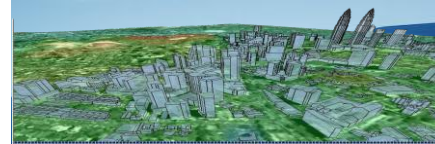
JUPEM, JTU, JTS, ARSM

Contoh lapisan data:

-Contour_Line

Lapisan data garisan ketinggian mukabumi yang meliputi kawasan Semenanjung Malaysia





PENKELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

Data Custodian:

DOA

Contoh lapisan data:

-Mined_Land

Lokasi kawasan tanah lombong yang terdapat di Semenanjung Malaysia

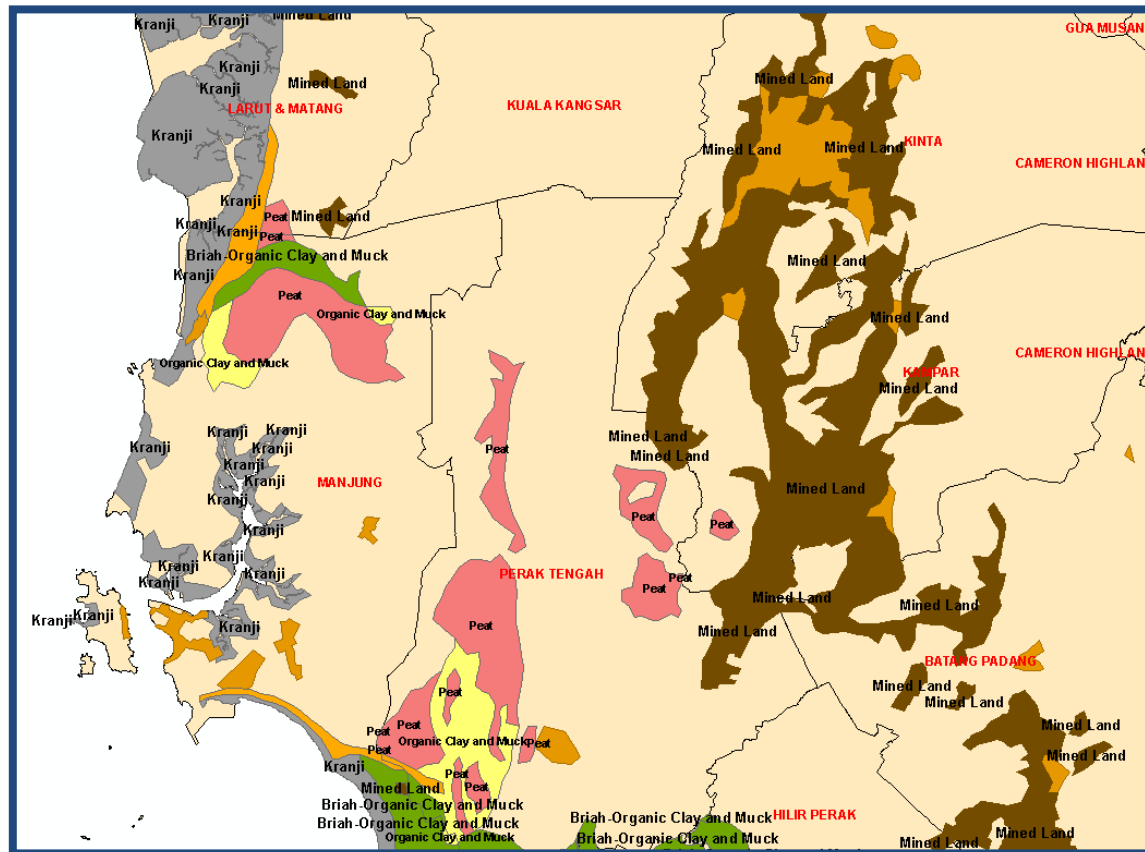
- Hydraquents

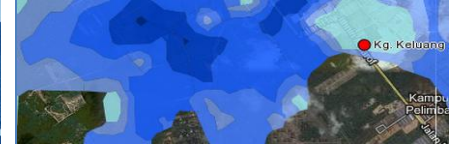
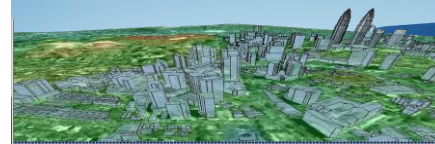
Klasifikasi jenis tanah Kranji yang terdapat di Semenanjung Malaysia

- Placaquepts

Klasifikasi jenis tanah Briahe-Organic Clay and Muck yang terdapat di Semenanjung Malaysia

SOIL





PENKELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

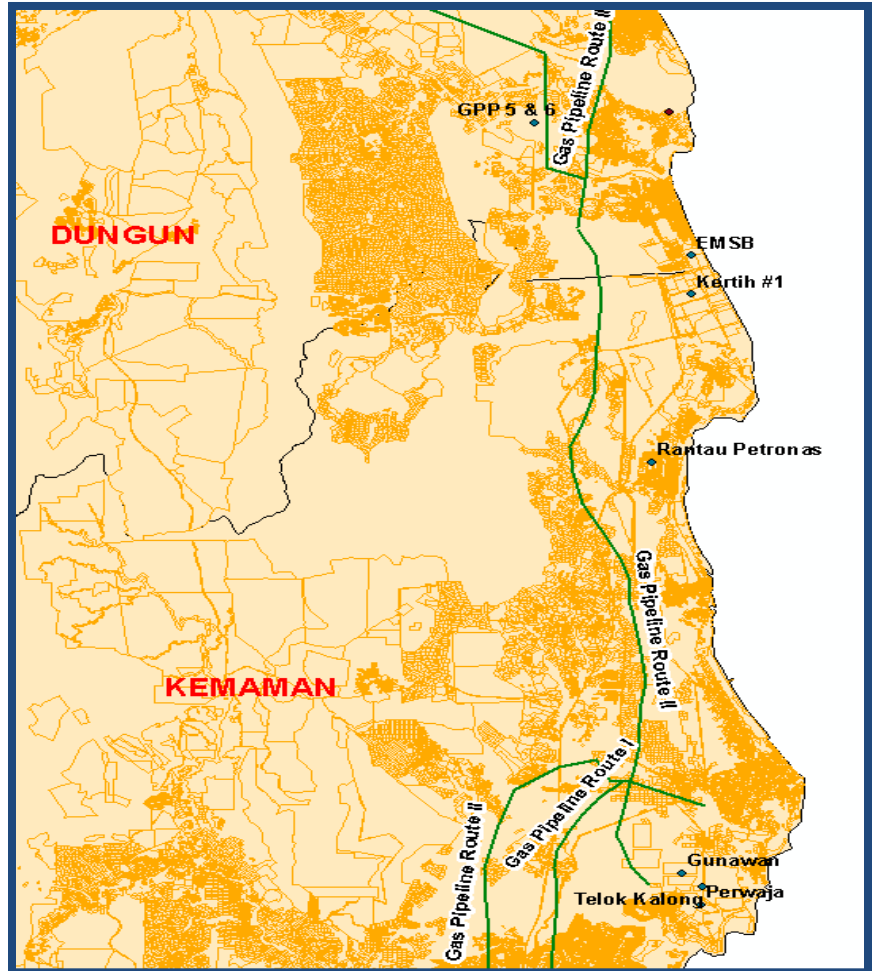
UTILITY

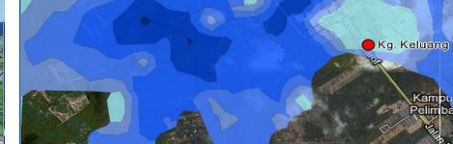
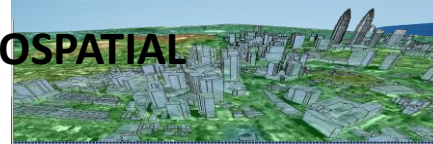
Data Custodian:

JUPEM, TNB, PBT, IWK

Contoh lapisan data:

- Substation
Taburan pencawang elektrik yang terdapat di Semenanjung Malaysia
- Oil_and_Gas_Pipeline
Lokasi jaringan paip minyak dan gas yang terdapat di Semenanjung Malaysia
- Antenna_Tower
Lokasi menara pemancar yang terdapat di Semenanjung Malaysia





PENKELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

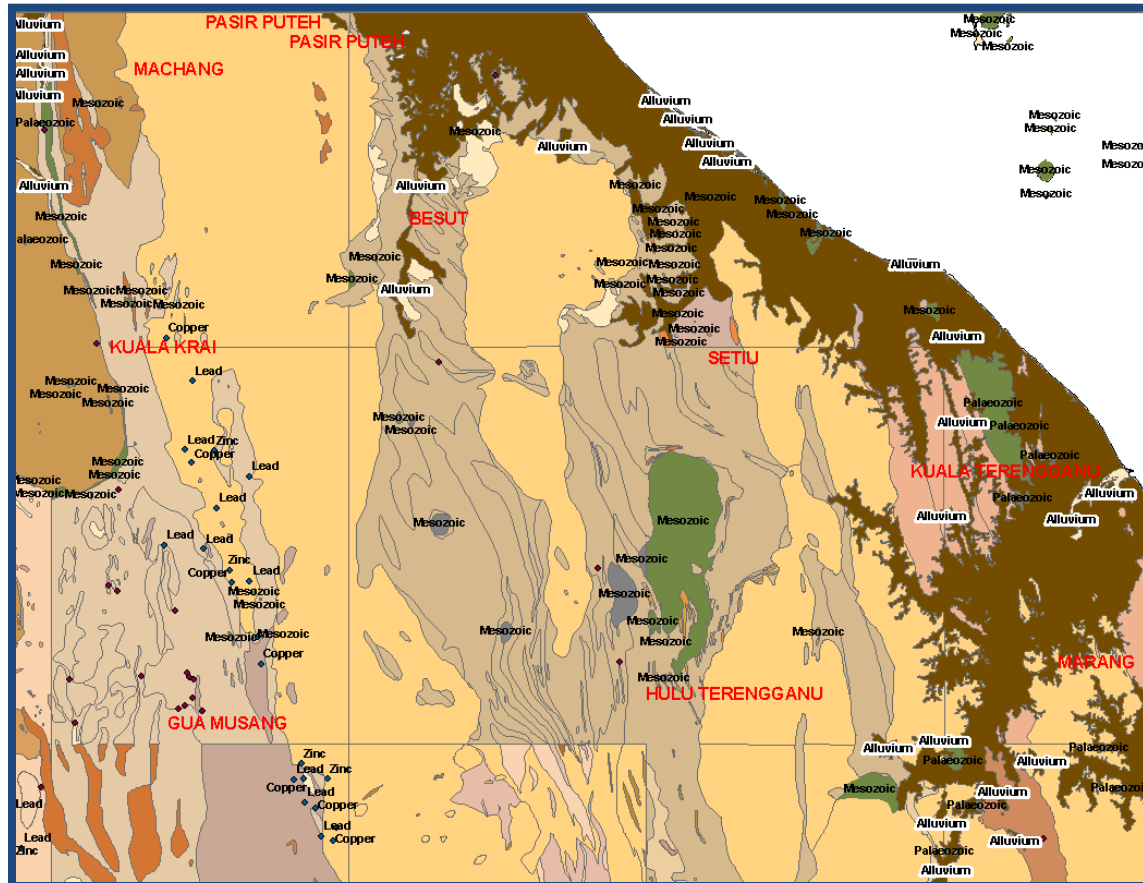
GEOLOGY

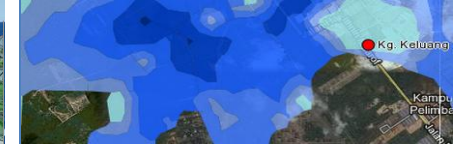
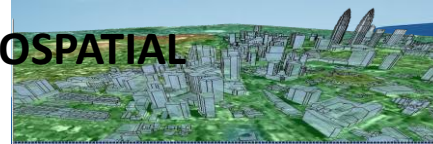
Data Custodian:

JMG, JKR

Contoh lapisan data:

- **Igneous_Rock**
Klasifikasi jenis batuan igneus yang terdapat di Semenanjung Malaysia
- **Base_Metal**
Klasifikasi jenis mineral asas besi seperti zink dan copper yang terdapat di Semenanjung Malaysia
- **Quarry_Site**
Lokasi kawasan kuari yang terdapat di Semenanjung Malaysia





PENKELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

Data Custodian:

DOA, JPSM, JUPEM

Contoh lapisan data:

- Oil_Palm

Klasifikasi kawasan tanaman kelapa sawit yang terdapat di Semenanjung Malaysia

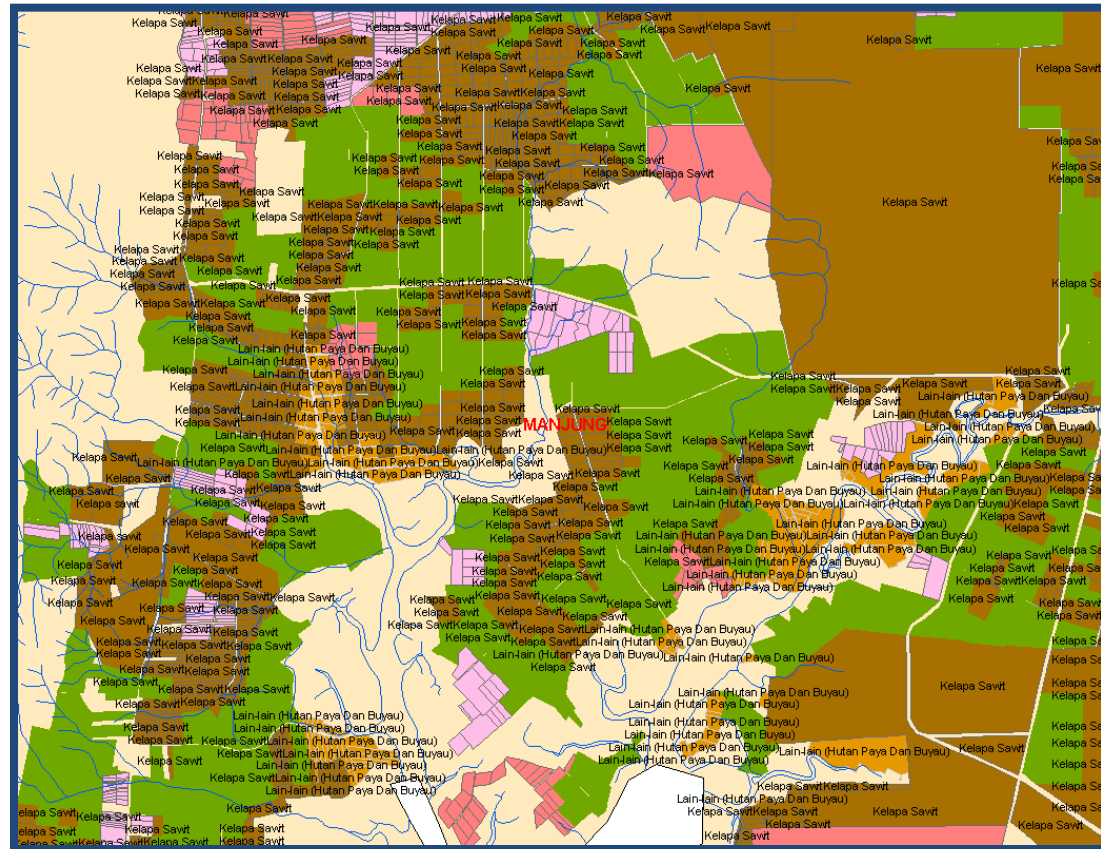
- Rubber

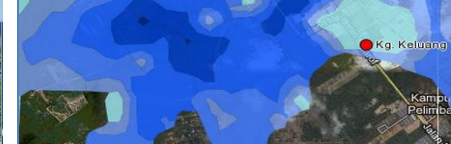
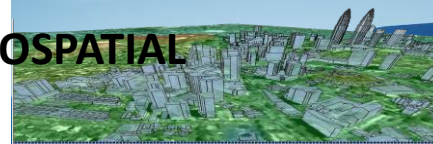
Klasifikasi kawasan tanaman getah yang terdapat di Semenanjung Malaysia

- Mangrove_Forest

Klasifikasi kawasan hutan paya bakau yang terdapat di Semenanjung Malaysia

VEGETATION





PENGGELASAN KATEGORI DATA GEOSPATIAL DI BAWAH MyGDI

GENERAL

Data Custodian:

JUPEM, ARSM, JTU, JTS

Contoh lapisan data:

- SPOT5_Semenanjung

Imej Satelit SPOT 5 yang meliputi seluruh kawasan Semenanjung Malaysia

- GCP_Point

Taburan titik kawalan bumi (GCP) yang terdapat di Semenanjung Malaysia



KATALOG MAKLUMAT GEOSPATIAL

MYGDI Explorer

Serving Your Geospatial Information Needs



[HOME](#) [SEARCH](#) [MYGDIX VIEWER](#)

Search

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Results 1-10 of 54 record(s)

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WHERE

- Anywhere
- Intersecting
- Fully within



[Expand results](#) [Zoom To Results](#) [Zoom To Searched Area](#)

- [NGDC - ROAD IN PENINSULAR MALAYSIA](#)
- [LOCAL AUTHORITIES ROAD NETWORK FOR MARAN](#)
- [LOCAL AUTHORITIES ROAD NETWORK FOR JERANTUT](#)
- [SGDC SABAH - JARINGAN JALAN RAYA 2010 \(POLYLINE\)](#)
- [SGDC SABAH - JALAN RAYA 2010 \(POLYGON\)](#)
- [WIDENING ROAD PLAN OF PENANG ISLAND](#)
This is a vector based data from JUPEM Cadastral Lot (2004 version) and digitized based on scanned images of road widening map. The data shows the Road Widening information in Majlis Perbandaran Pulau Pinang area.
[Website](#) [Metadata Details](#) [Metadata \(XML\)](#) [Zoom To](#)



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MYGDI Explorer

Serving Your Geospatial Information Needs

HOME SEARCH MYGDIX

Metadata Details

GENERAL INFORMATION (METADATA)

Content Information*: Live Data and Maps

Metadata Language: Bilingual (en & ms)

Metadata Create Date: 2011-11-03

Metadata Publisher

Organisation Name*: MaCGDI, NRE

Name*: Azmaliza Kamis

Telephone*: 03-88861210

Email*: azma_kamis@macgdi.gov.my

Role: custodian (002)

Metadata Standard Name: MS ISO 19115

Metadata Standard Malaysian Metadata Standard (MMS)

Version: Services

IDENTIFICATION INFORMATION

Title*: AREA OF INTEREST (AOI) KOTA SETAR - MaCGDI, KEDAH

Abstract*: Area of Interest (AOI) Kedah ini adalah terdiri daripada 11 layer utama iaitu Jalan, Sungai, kemudahan awam seperti taburan Stesen taburan Sekolah, bangunan Komersial, bangunan Keagamaan, bangunan Institusi, Lot Tanah, Sempadan Mukim, Sempadan Daerah Sempadan Negeri Kedah. Kawasan tumpuan dalam AOI ini adalah Daerah Kota Setar sahaja. Sumber data AOI Kedah ini diperolehi dari Projek pembangunan fundamental dataset State Geospatial Data Centre (SGDC) Kedah tahun 2009. Dataset ini melibatkan kompleks pelbagai skala. Sistem unjuran dataset ini adalah dalam Sistem Koordinat GDM Cassini Kedah Perlis. Format data ini adalah dalam *.gdb

Date: 2011-11-03

Date Type: creation (001)

Status: completed (001)

Type of Service*: ArcGIS Service

Operation Name: ArcGIS Server 10

Responsible Party

Organisation Name*: MaCGDI, NRE

Name: Ahmad Akhir Bin Tompong

Position Name: Ketua Penolong Pengarah

Address: Level 7&8, Wisma Sumber Asli, No. 25, Persiaran Perdana, Presint 4

City: WP Putrajaya

State*: WP Putrajaya

Postal Code: 62574

Country: Malaysia

Telephone*: 03-8886 1208

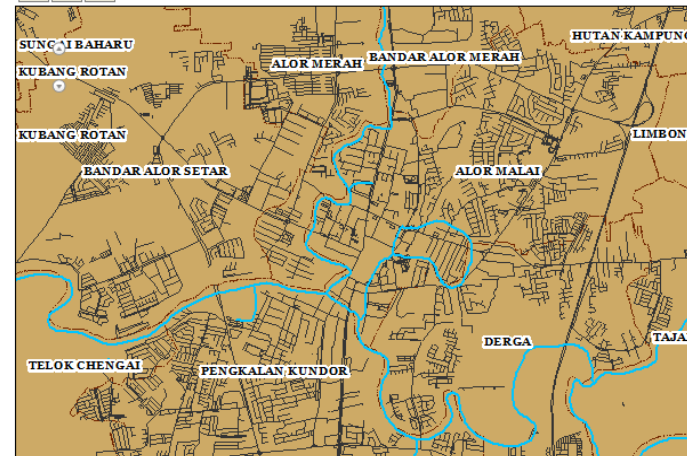
Fax: 03-8889 4851

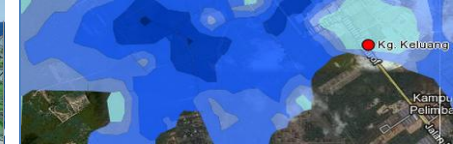
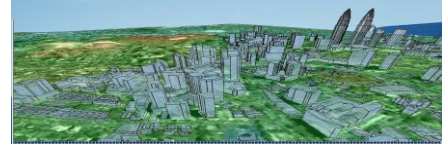
Email*: ahmadakhir@macgdi.gov.my

Contact Website: <http://www.mygeoportal.gov.my>

Role: custodian (002)

Live Data





PUBLIC - 1Malaysia Map

Malaysia Map
A Geoinformation Viewer for Everyone

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Places of Interest

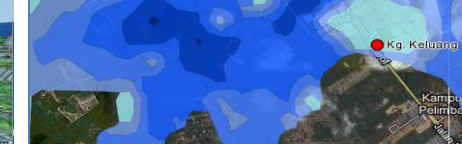
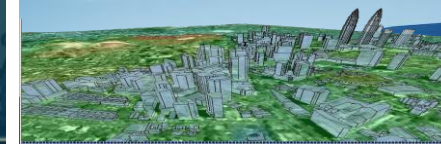
Layer Visibility

- Food and Dining
- Place of Worship
- Petrol Station
- Emergency
- Public Facilities
- Educational Institution
- Accomodation
- Bank
- Retail and Services Outlet

Basemaps

- Bing Hybrid
- Bing Aerial
- Bing Streets
- OpenStreetMap
- NATIONAL GEOGRAPHIC NatGeo World Map
- Esri Imagery

Latitude: 3.203403 Longitude: 101.705551 Scale: 1:144,447.63



IRBM EDITOR/ MONITORING

IRBM Editor
Pengurusan Lembangan Sungai Bersepadu (IRBM)

Enter address [About](#)

Layer List
Layer Visibility

- Punca Pencemaran - Editor**
- Bengkel
- Gudang / Stor
- Kedai
- Kilang Berlesen (Dipantau J/
- Kilang Haram (Tidak Dipanta
- Kolam Takungan
- Ladang Tanaman
- Ladang Temakan

Feature Details:

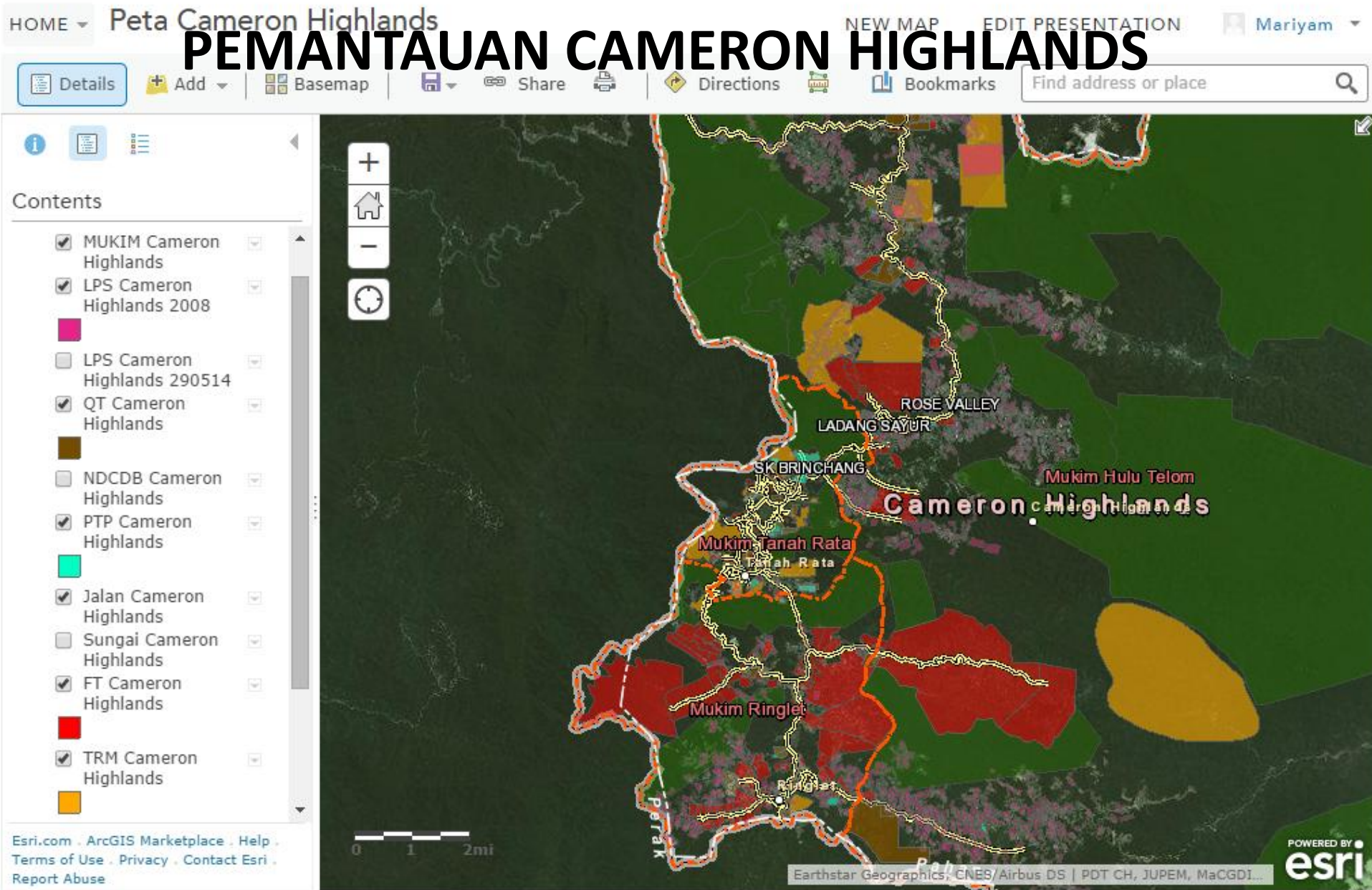
Nama	*MANDALYN STAINLESS STEEL FABRICATION
Alamat	
Jenis	Kilang Berlesen (Dipantau JAS)
Lembangan Sungai	Sungai Langat
Aktiviti	Kilang Pembuatan Logam dan Bukan Logam
X	0
Y	0

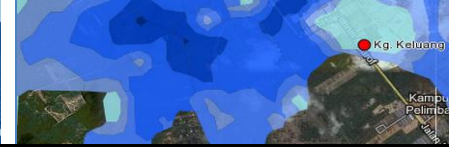
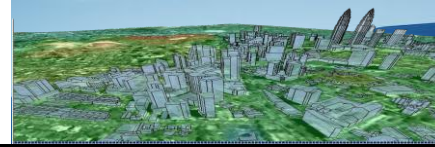
Zoom to

Latitude: 2.999611 Longitude: 101.735760

Maklumat setiap feature punca pencemaran di paparkan

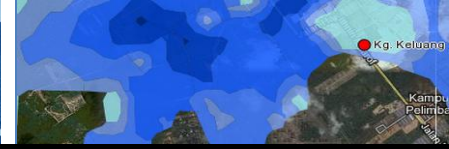
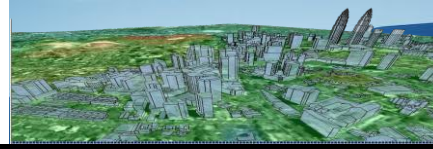
NRE – BLUE OCEAN STRATEGY :PROJEK PEMANTAUAN CAMERON HIGHLANDS



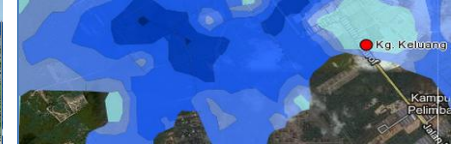
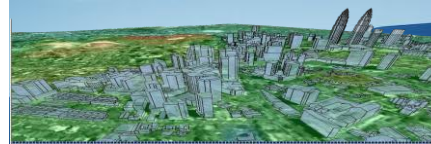


APAKAH FAEDAH/BENEFIT TEKNOLOGI MAKLUMAT GEOSPATIAL

- *Critical role in utilizing geospatial information to work smarter, manage logistics, and support informed decisions throughout the economy.*
- *Important role in supporting cost effective government and stimulating economic growth through job creation. Through a coordinated approach, Geospatial National Strategy coupled with a robust set of geospatial information services can stimulate economic growth and also can control cost incurred by government agencies.*
- *Map visualization and analysis can play an important role in responding to natural disasters, enabling more effective decision making and provide better service to the public.*
- *Its capabilities can also be used in identifying redundancies and opportunities for consolidation.*
- *Utilizing an enterprise multi agency approach for the creation and collection of data can result in cost and resource savings and increasing the value of returns.*
- *Geospatial Information technology is the key decision support tools that supports public safety including infra protection, first responder situational awareness and homeland security.*

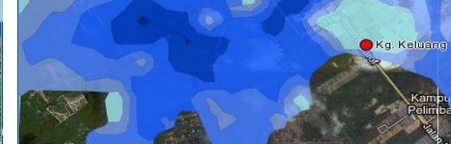
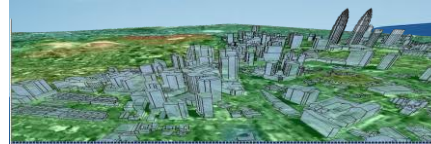


ISSUES & CHALLENGES



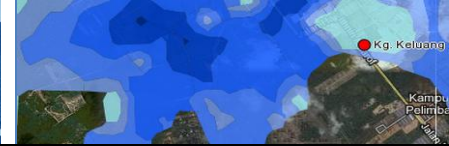
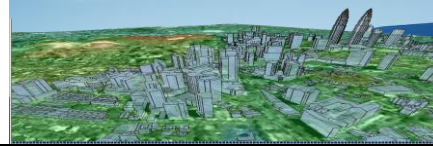
ISSUES AND CHALLENGES

KEY AREAS	ISSUES & CHALLENGES
GOVERNANCE/ INSTITUTIONAL	the lack of effective governance over geospatial information and systems across the public sector - leadership and coordination of government's geospatial activities.
LEGAL FRAMEWORK	Lack of a national strategy – the geospatial industry has developed on the basis of a variety of different organizations independently developing geospatial information to support their own information needs and business processes.
GEOSPATIAL DATA & CONTENT	the inability to combine geospatial information - proprietary data and systems technology not allowing complete interoperability.
	the lack of complying to agreed standards for facilitating geospatial interoperability and data sharing.



ISSUES AND CHALLENGES

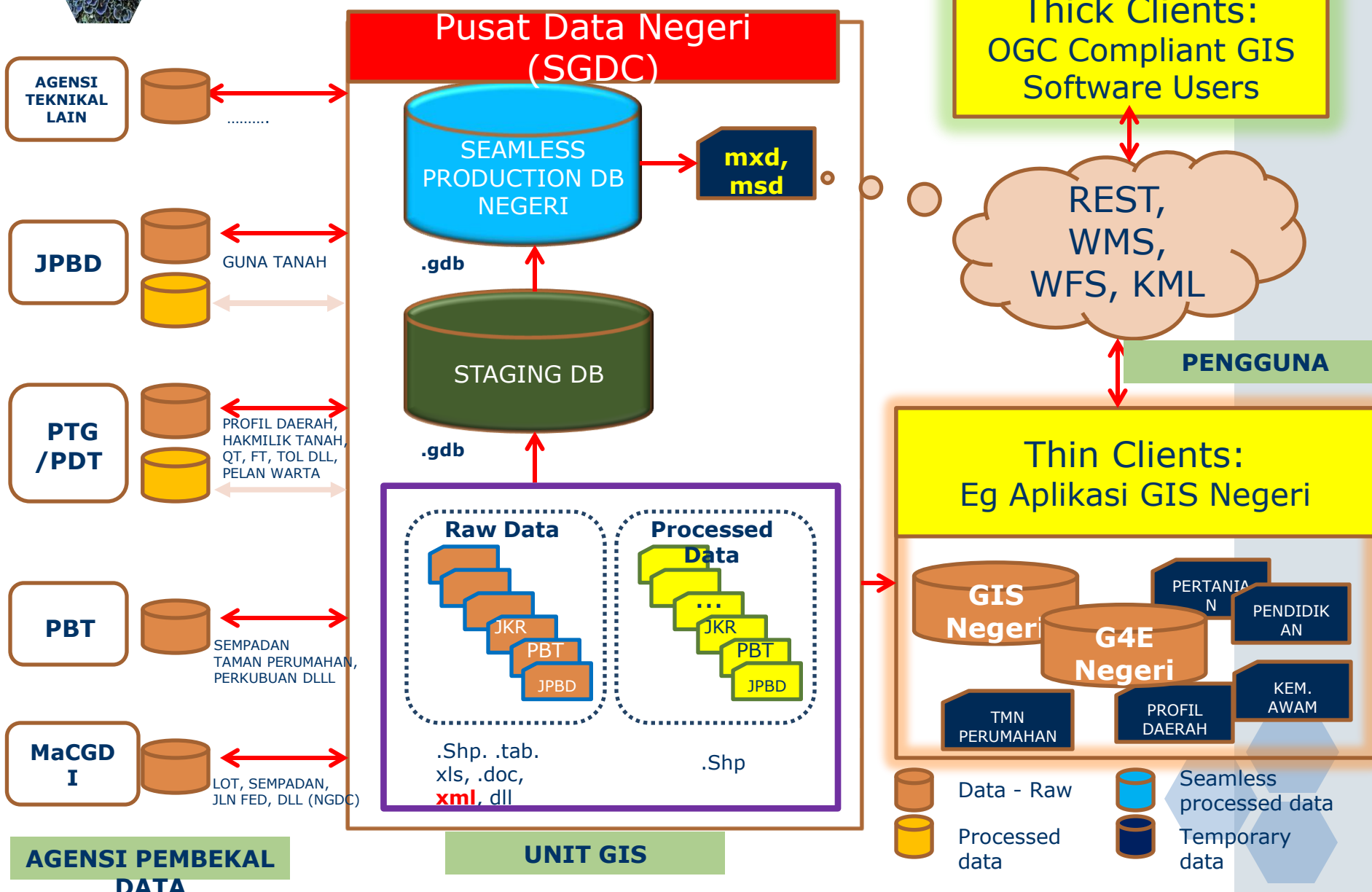
KEY AREAS	ISSUES & CHALLENGES
ACCESSING/ACCESS MECHANISM/SHARING	<p>a lack of knowledge of, and access to, the geospatial information assets owned, maintained or used by government - no easily accessible geospatial data and services providing discoverability of geospatial datasets.</p> <p>No framework for collaboration – in areas such as the acquisition of aerial imagery or large scale field inventories, individual organizations would benefit from collaborating with other organizations to pool their resources and thereby increase their collective capacity.</p>
SKILLS DEVELOPMENT/HUMAN RESOURCES	lack of geospatial capacity within some public agencies and a lack of education about the potential application of geospatial information



WAY FORWARD – PROPOSED STRATEGIES



KONSEP PERKONGSIAN, PENGEMASKINIAN DAN PELAKSANAAN REPOSITORI DATA GEOSPASIAL NEGRI





HIGH INCOME ADVANCED NATION

EMPOWERMENT OF GEOSPATIAL INFORMATION MANAGEMENT

GUIDING PRINCIPLE

Resources Security

Environmental Protection

Conducive Business Environment

Public Safety & Well-Being

GEOSPATIAL INFORMATION

Business

- Commercialization of the geospatial data
- Collaboration between government and business community

Disaster Risk Management

- Prevention
- Preparedness, response, recovery

Emerging Issues

- Marine SDI
- Security
- Regional/ International Cooperation

Social

- Health
- Education
- Rural and urban planning
- Land use
- River of Life

Environment

- Climate change
- REDD
- IRBM

Fundamental Dataset

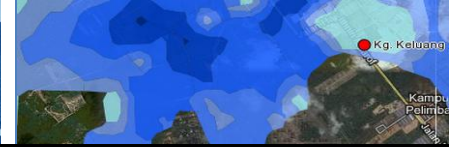
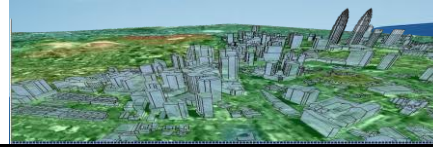
- Readiness of data
- Sharing & utilisation

CROSS CUTTING ELEMENTS

- Policy / Action Plan (Integration – EA/ IA)
- Institutional Framework
- Sustainable Financing
- Targeted Incentives (SOP, auditing)
- Promotion

- Legislation & Enforcement
- Communication, Education & Public Awareness (CEPA)
- Guidelines & Best Practices
- Resource Management

- Indicators & Data
- Research & Development
- Human Resource Development
- Certification & Recognition
- Technology (satellite, software, hardware, network, security)



Priorities Areas for Strategies and Initiatives

- Governance/Institutional
- Legal Framework
- Content and Data
- Utilization of Geospatial Data
- Funding and Economic Viability
- Research & Development/Skill Enhancement

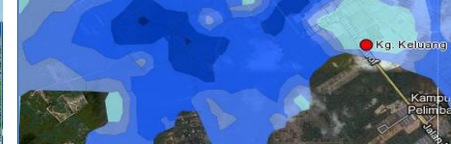
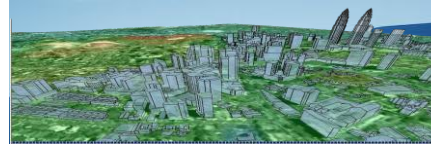
PROPOSED STRATEGIES

PRIORITIES AREAS	STRATEGIES
GOVERNANCE/ INSTITUTIONAL	<ul style="list-style-type: none">i. Review, improve governance structure & institutional arrangements and formalise National GIM Platformii. Federal government to provide leadership and facilitation role in the national geospatial community
CONTENT/ DATA	<ul style="list-style-type: none">i. Ensure accountability and effective development and management of geospatial resourcesii. To secure and strengthen national, sectoral and defence geospatial resourcesiii. Harnessing the skills and expertise of users and communities of interest to share in the updating, maintaining cycle
FUNDING AND ECONOMIC VIABILITY	<ul style="list-style-type: none">i. To generate income through commercialization of value-added geospatial informationii. To generate revenue through commercialization of geospatial information to corporate investors (foreign and local investors)

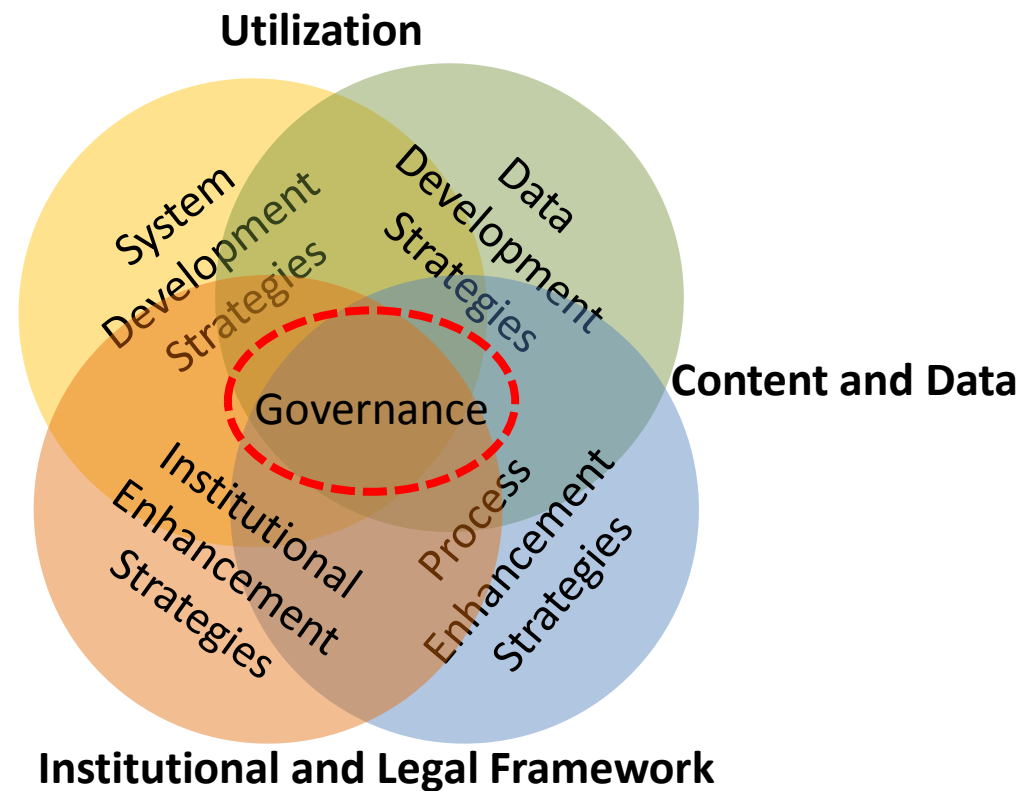
PROPOSED STRATEGIES



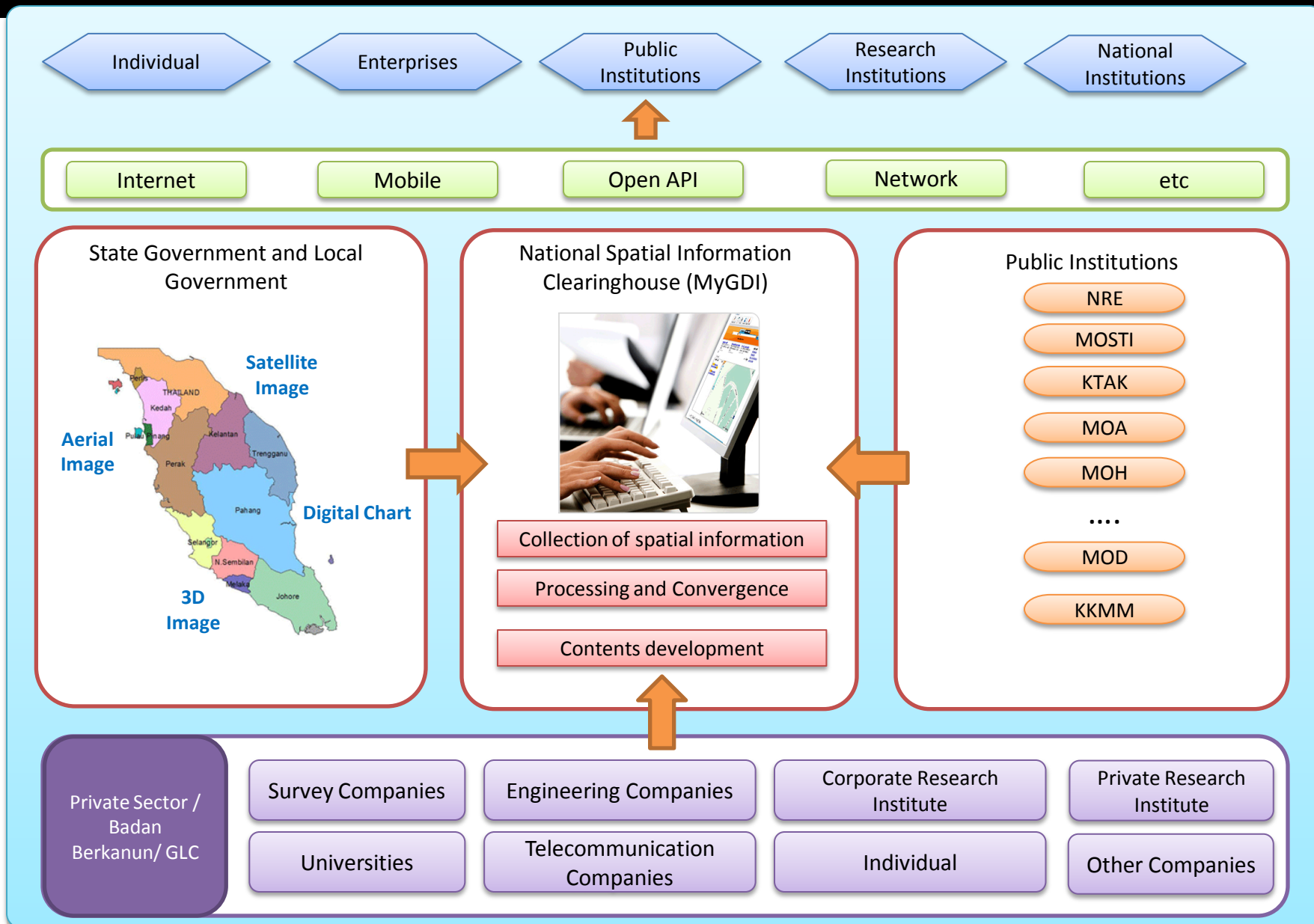
PRIORITIES AREAS	STRATEGIES
UTILIZATION	<ul style="list-style-type: none">i. Develop capabilities for national shared services a vital strategy for delivering geospatial solution faster for less money and with fewer resources.ii. Promote sharing and optimize utilization of geospatial information & technologyiii. To improve access mechanism - Improve the capacity of infrastructure to ensure the flow of information is efficient (Efficient ICT Infrastructure)iv. Capacity buildingv. Streamline of applications and business processes to ease integration of data/applications; legal and technical assessment is needed.
RESEARCH & DEVELOPMENT/ SKILL ENHANCEMENT	<ul style="list-style-type: none">i. To establish Malaysia as the geospatial hub in Asia - To identify research areas related to field (eg social, economy, environmental mitigation etc)ii. To provide education, training and job opportunities (geospatial specialist)iii. Rationalize and align industry/government's needs with education/training

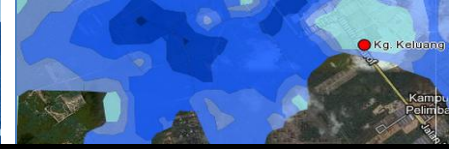
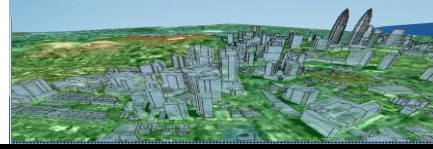


Governance as the Foundation for Action Plan



Spatial Information needed for all people in a place without time and location limitations





SEKIAN, TERIMA KASIH.