UNIVERSITAS
GADJAH MADA

May 17, 2024

Course: Geospatial Information Infrastructure

Proses-Bisnis Geoportal di Indonesia

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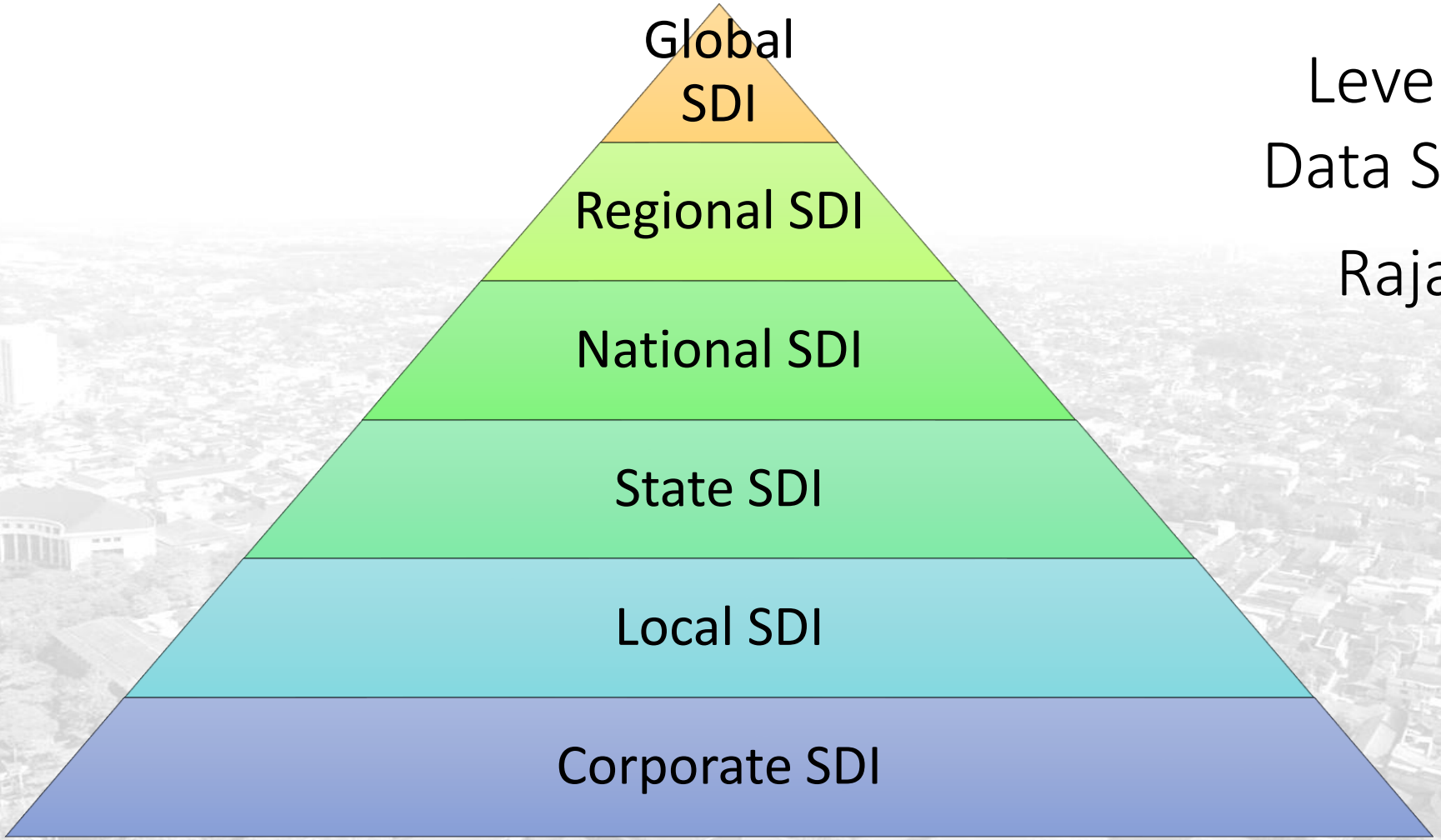
Departemen Teknik Geodesi UGM

Proses Bisnis Infrastruktur IG

- Hirarki SDI
- Aplikasi Geoportal pada Proses-Bisnis IIG
- Penjelasan Tugas Akhir

Hierarki Infrastruktur Informasi Geospasial

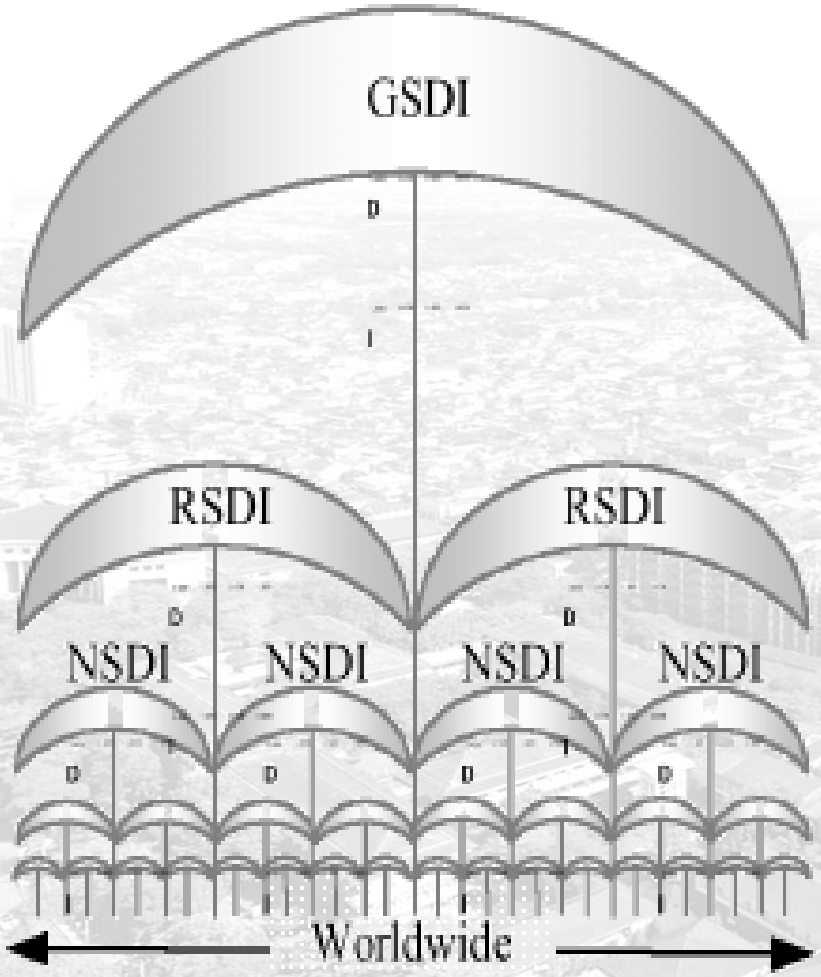


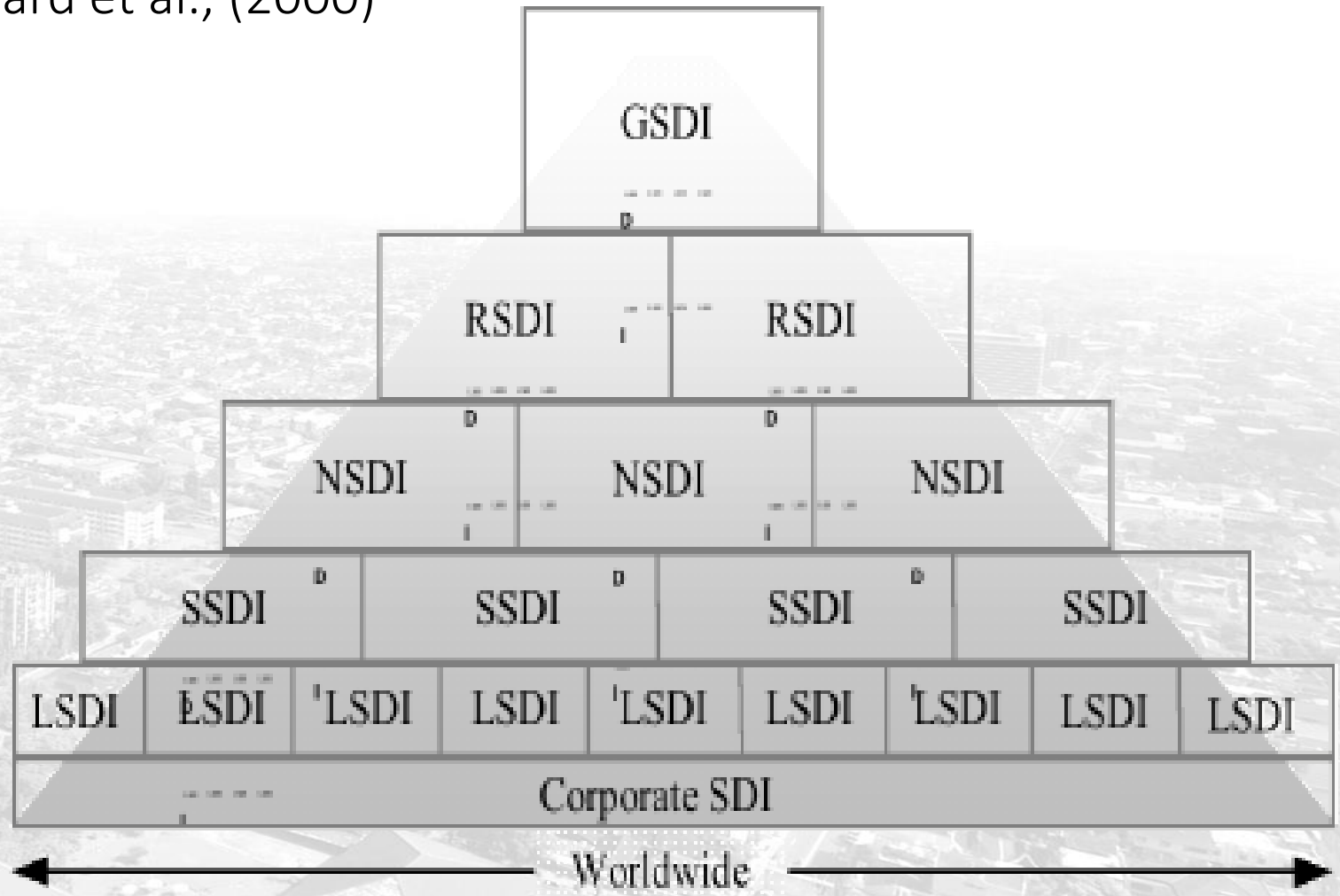
Level Infrastruktur Data Spasial menurut Rajabifard et al., (2000)

Hierarki Infrastruktur Informasi Geospasial

Umbrella View vs Building Block View

Rajabifard et al., (2000)





Hierarki Infrastruktur Informasi Geospasial

	Global SDI	Regional SDI	National SDI	State SDI	Local SDI
Institutional Framework	Custodianship, Data access, Sponsorship, Leadership, Education & Training,	Custodianship, Data access, Sponsorship, Leadership, Education & Training,	Custodianship, Data access, Sponsorship, Leadership, Education & Training,	Custodianship, Data access, Sponsorship, Leadership, Education & Training,	Custodianship, Data access, Sponsorship, Leadership, Education & Training,
Fundamental Datasets	Global Control Network, Elevation, Administrative boundaries, Transportation, Main Hydrologic features, Main Population places, Main Geographic names, Natural hazards,	Regional Geodetic Control Network, Elevation, Administrative boundaries, Transportation, Hydrologic features, Population places, Geographic names, Land use & land covers, Natural hazards, position of regional projects,	National Geodetic Control Networks, Topographic features, Land use & Land covers, Natural hazards, Position of national projects, Cadastral,	National & State Control Networks, Topographic features, Cadastral map, Natural hazards, Position of national & state projects,	National & Local Control Networks, Topographic features, Cadastral map, Natural hazards, Position of national & local projects,
Scale	Small (less detailed data)	~Small-Medium	~Medium-Small	~Large-Medium	Large (more detailed data)
Technical Standards	International Standards (ISO/TC211)	International (ISO/TC211) or Regional Standards	International (ISO/TC211) or National Standards	National Standards	National Standards
Access Network	Global directory system, Technology framework (WWW)	Regional Directory system, Technology framework (distributed databases)	National Directory system, Technology framework (distributed databases, WAN)	State Directory system, Technology framework (distributed databases, WAN)	Local Directory system, Technology framework (distributed databases, WAN)

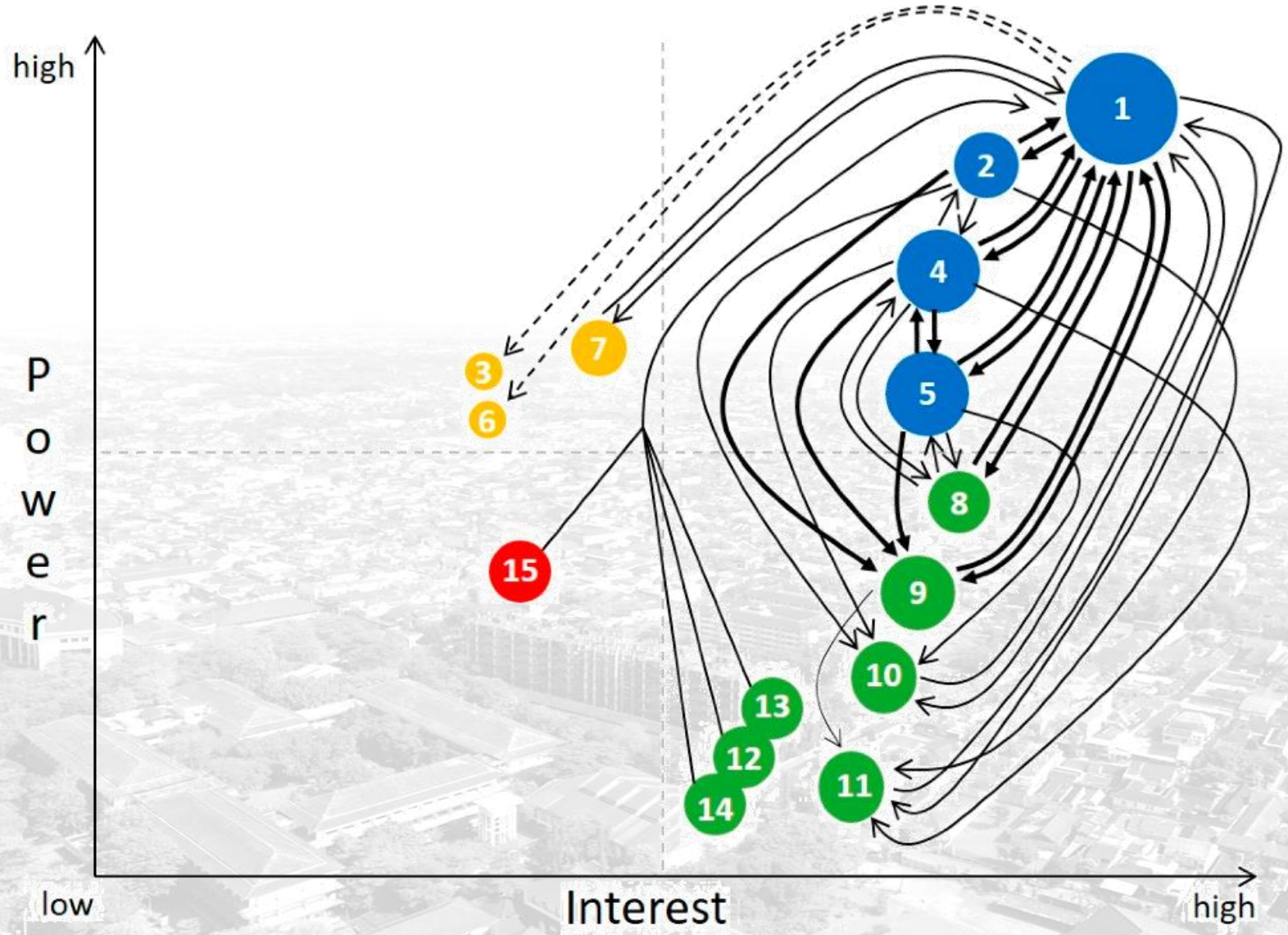
Cakupan berbeda

=

Perbedaan implementasi IIG

(Rajabifard, et.al.2000)

Hierarki Infrastruktur Informasi Geospasial

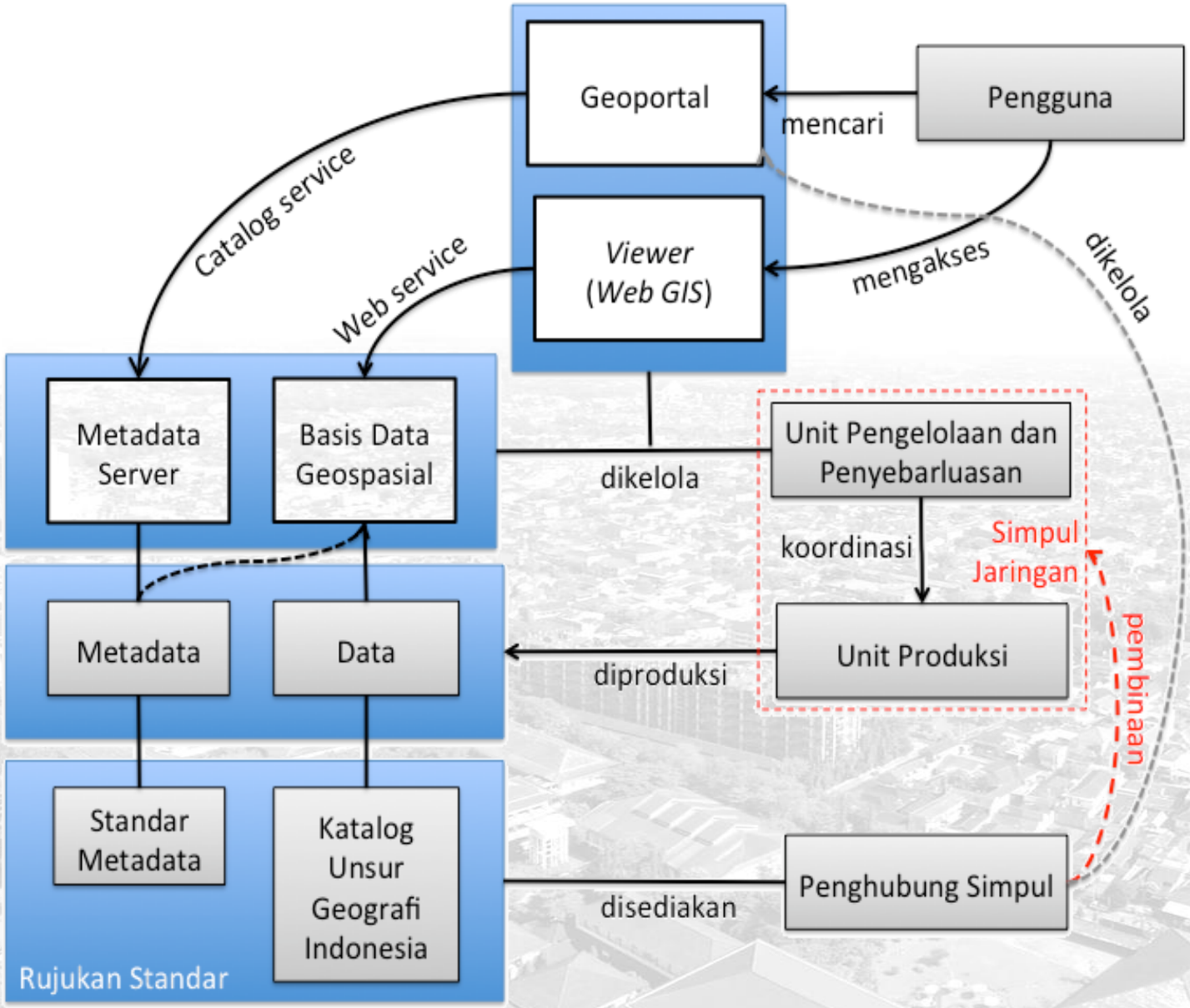


Aktor-aktor pada IIG di Indonesia
(Dwi Putra et al., 2019)

1. BIG
2. Central Government Agencies
3. State Institutions
4. Provincial Government
5. Municipality/District Government
6. National Police
7. National Armed Forces
8. PPIDS
9. Survey and Mapping Companies
10. Geospatial Application Developers
11. GIS Software Providers
12. NGOs/NPOs
13. Lecturers/Researchers
14. Students
15. Citizens

Strong relation
Weak relation
Unconnected

Hierarki Infrastruktur Informasi Geospasial



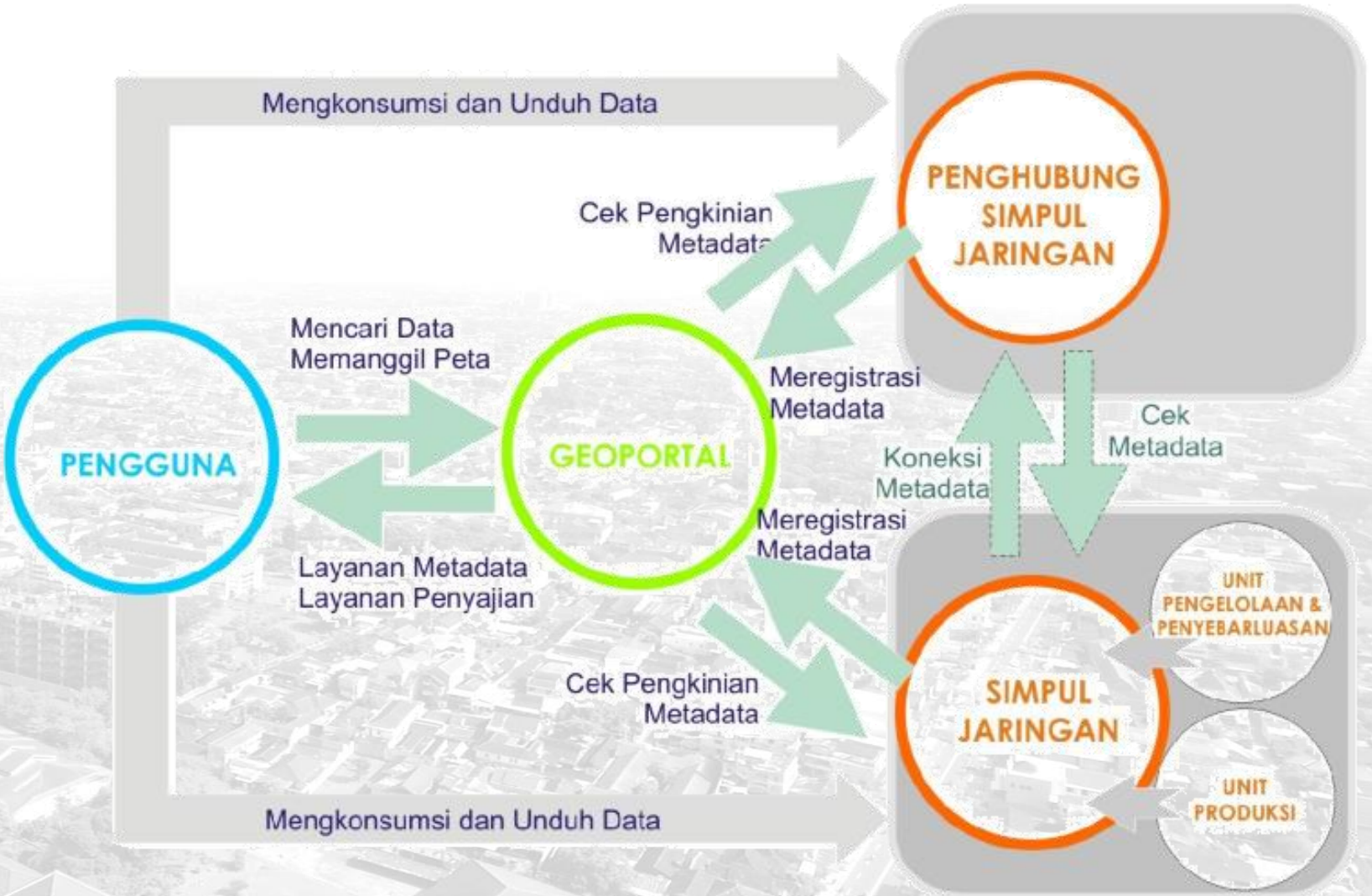
Proses Bisnis Jaring Informasi Geospasial Nasional Indonesia

Dari simpul jaringan sampai geoportal nasional saling terhubung melalui layanan (service) data dan Informasi geospasial

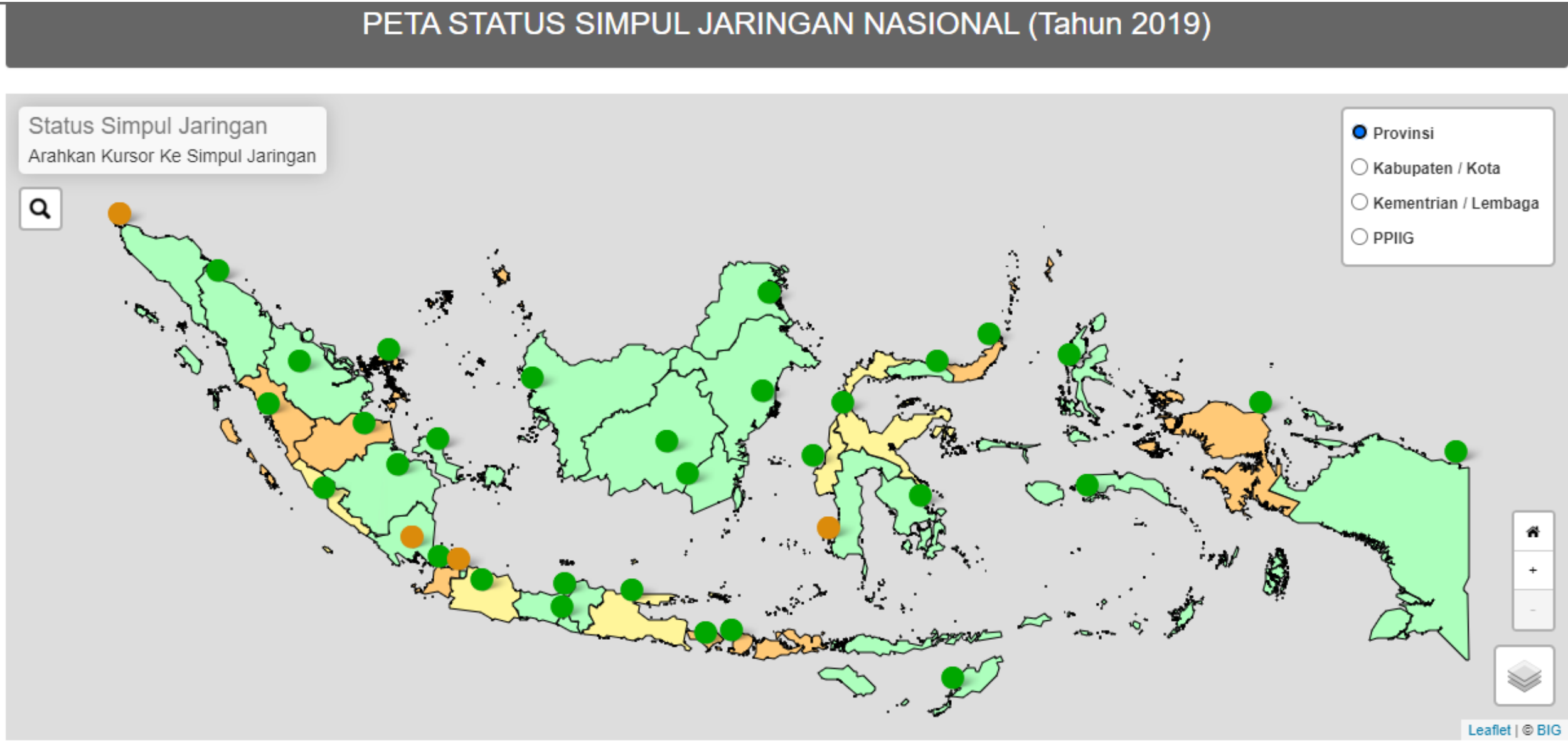
Hierarki Infrastruktur Informasi Geospasial

Peran Geoportal dalam Jaringan Informasi Geospasial Nasional:

Pintu masuk utama (*single point of access*) untuk data spasial di Indonesia



Hierarki Infrastruktur Informasi Geospasial



Aplikasi untuk Infrastruktur Informasi Geospasial

Bagaimana peranan masing-masing aplikasi dalam Proses Bisnis IIG?

Spatial Data Server Only

GeoServer

Full-Fledge Geoportal

GeoNode

GeoNetwork opensource

Map Viewer Only

MapStore 2

terria

Skema KUGI pada Geoportal

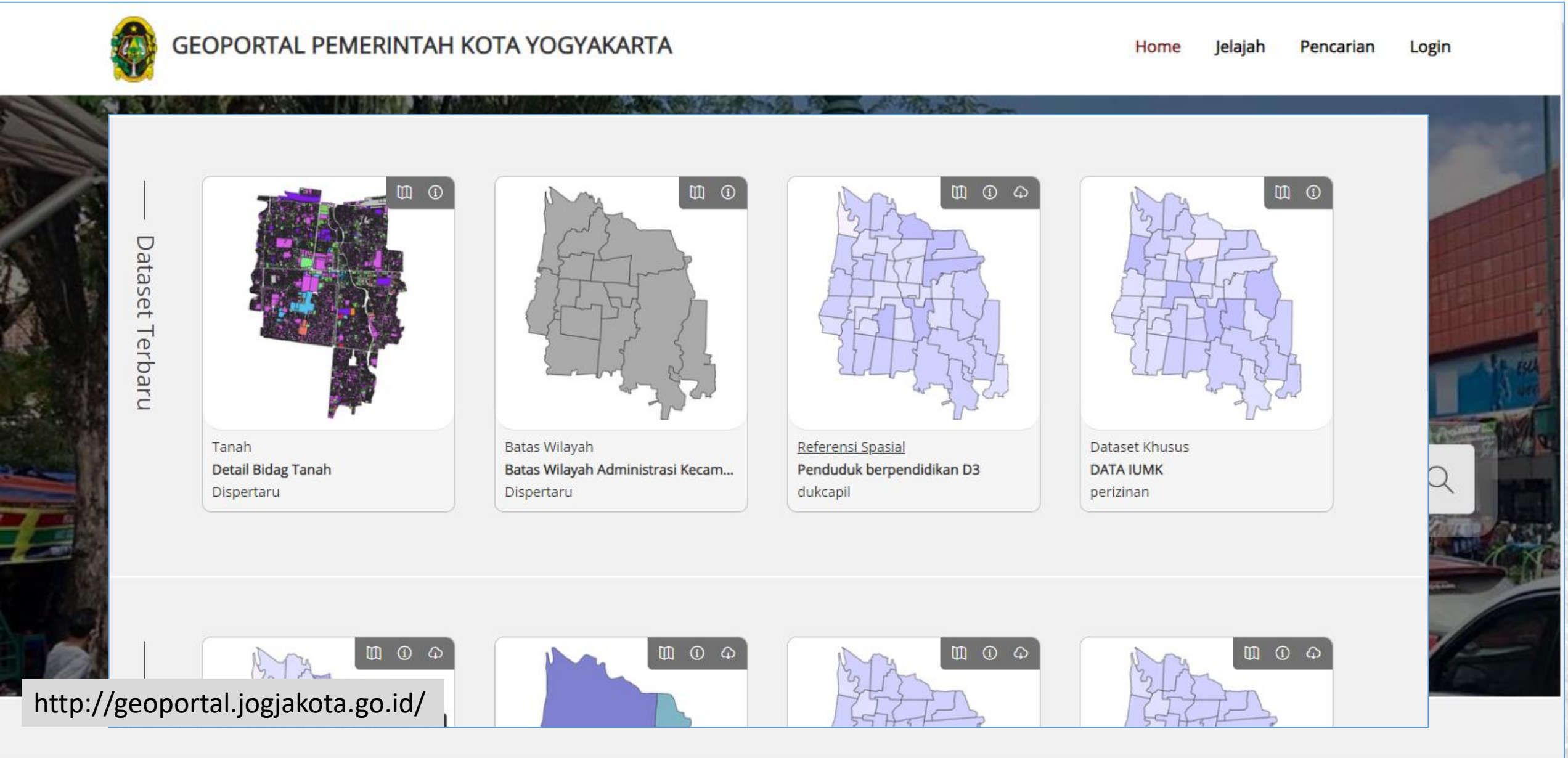
KUGI 5

- REFERENSI SPASIAL detail
- BATAS WILAYAH detail
- TRANSPORTASI detail
- HIDROGRAFI detail
- HIPSOGRAFI detail
- VEGETASI detail
- LINGKUNGAN TERBANGUN detail
- UTILITAS detail
- GEOLOGI detail
- TANAH detail
- TOPONIMI detail
- KADASTER detail
- KEBENCANAAN detail
- PERENCANAAN detail
- DATASET KHUSUS detail

GeoNode

Proses Bisnis Infrastruktur IG

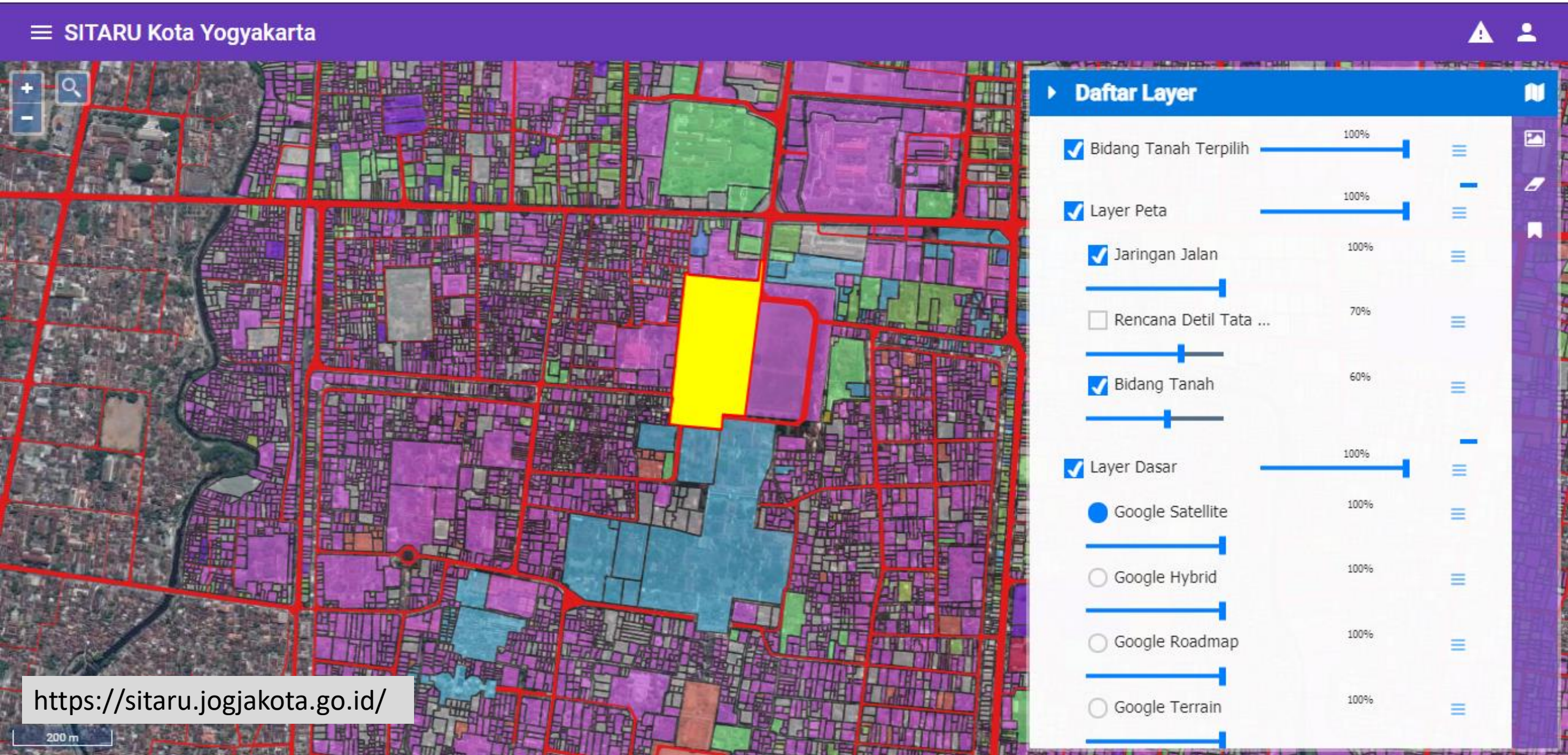
Geoportal Kabupaten/Kota



http://geoportal.jogjakota.go.id/

Proses Bisnis Infrastruktur IG

Aplikasi WebGIS Kabupaten/Kota



Proses Bisnis Infrastruktur IG

Geoportal Propinsi

Apps Data Maps About Web GIS/ Geoportal Search Sign in

Explore Layers

Upload Layers

Selected Layers

Add layers through the "checkboxes".

Create a Map

Filters Clear

TEXT

Search

KEYWORDS

TYPE

Vector Layers

84 Layers found

PLANNING CADASTRE

Pola Ruang RDTR Kota Yogyakarta

Pola Ruang RDTR Kota Yogyakarta

Badan Perencanaan Pembangunan Daerah DIY 4 Oct 2020

36 0 0 Create a Map

PLANNING CADASTRE

Pola Ruang Kabupaten Kulon Progo

Pola Ruang Kabupaten Kulon Progo

http://geoportal.jogjaprov.go.id/

Contoh Proses-Bisnis Geoportal

Skema KUGI

Server Data Spasial DISTARU Kota Yogyakarta

GeoServer

Geoportal Kabupaten Sleman

GeoNode

Geoportal Kota Yogyakarta

BADAN INFORMASI GEOSPASIAL

Geoportal PALAPA

Layer RDTR

WebGIS Sitaru

OpenLayers

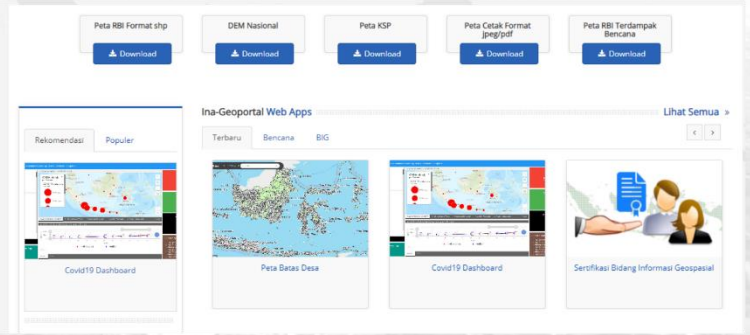
Harvester

Geoportal Propinsi DIY

GeoNode

CSW Metadata

Geoportal Nasional (Ina-Geoportal)



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