UN-GGIM-AP

REGIONAL COMMITTEE OF UNITED NATIONS GLOBAL GEOSPATIAL INFORMATION MANAGEMENT FOR ASIA & THE PACIFIC

13th Plenary meeting of the United Nations Global Geospatial Information Management for Asia and the Pacific

Report of the UN-GGIM-AP Working Group 3 (2024)

the activities carried out in the field of ***GSGF***

26th to 29th November,

Bharat Mandapam, New Delhi

ریاست جمهوری
سازمان برنامه و بودجه کشور

سازمان نقشه برداری کشور

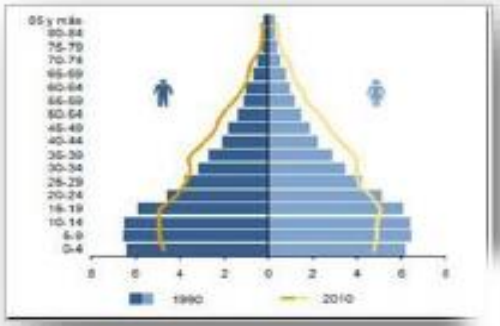
GIS day

Heartily thanks and appreciation to the
Dr. Antonius Bambang Wijanarto,
esteemed President of UN-GGIM-AP for his kindly motivating message
at the GIS Day ceremony in Iran.

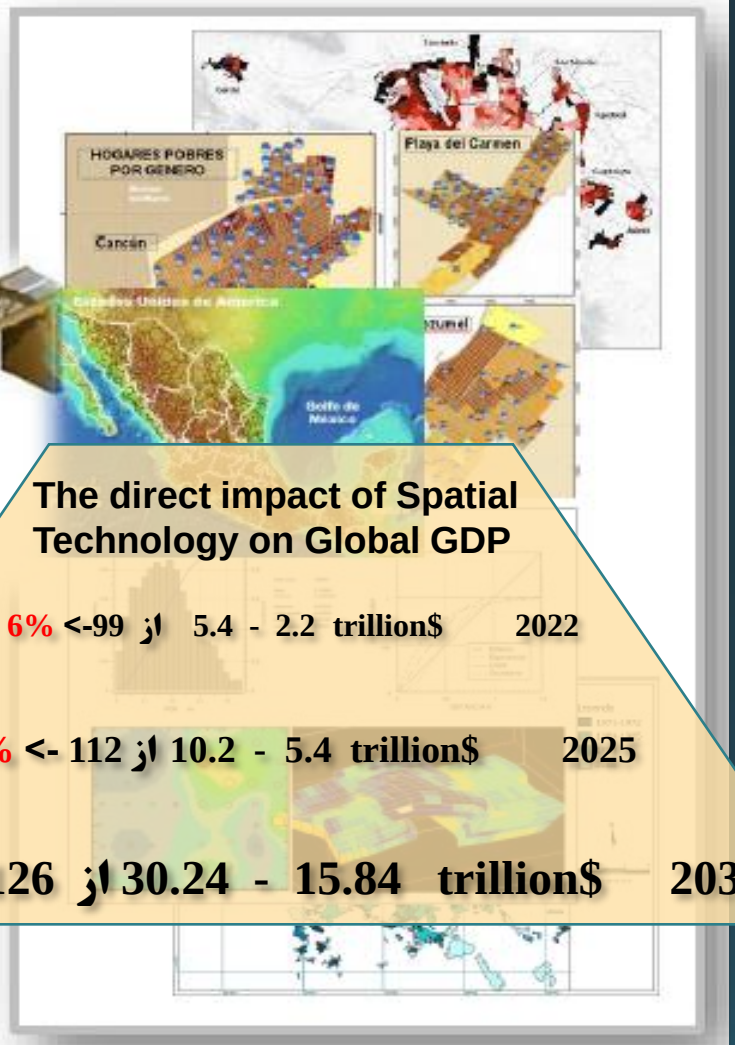
Integrating geospatial and statistical information to achieve the SDGs

GSGF Introduction

Statistical Information



Geographical Information



The direct impact of Spatial Technology on Global GDP

6% <-99 از 5.4 - 2.2 trillion$ 2022

9% <- 112 از 10.2 - 5.4 trillion$ 2025

24% <-126 از 30.24 - 15.84 trillion$ 2030

Problem Definition

Ministry of roads & Urban development

id	attr1	attr2	attr3	…..

Ministry of ICT

id	attr1	attr2	attr3	…..

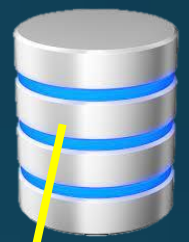
Municipality and Rural administrations

id	attr1	attr2	attr3	…..

Statistical DB

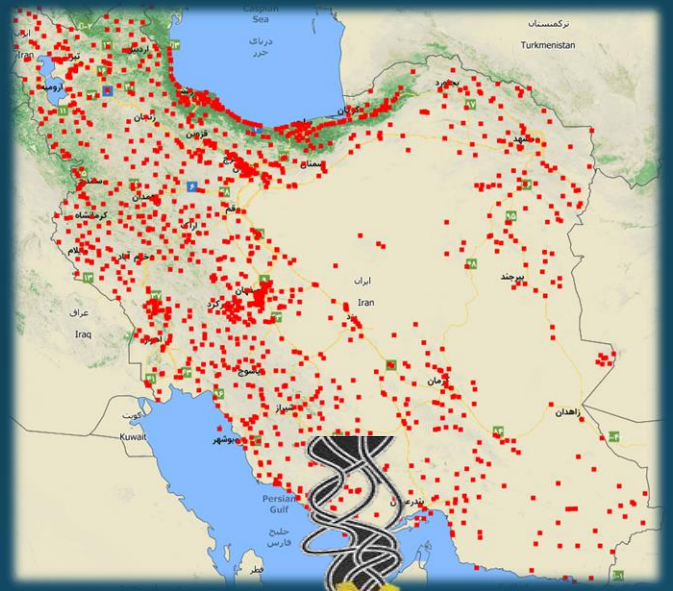
id	attr1	attr2	attr3	…..

MENTAK DB



id	attr1	attr2	attr3	…..

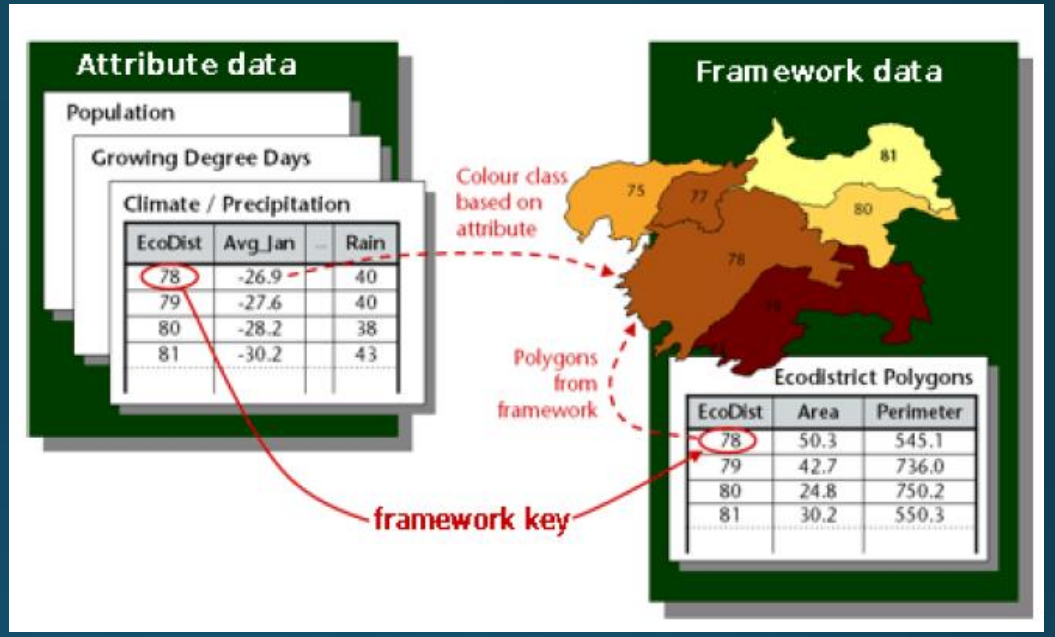
Problem Definition



id	attr1	attr2	attr3	…..	id	attr1	attr2	attr3	…..	id	attr1	attr2	attr3	…..	id	attr1	attr2	attr3	…..	id	attr1	attr2	attr3	…..

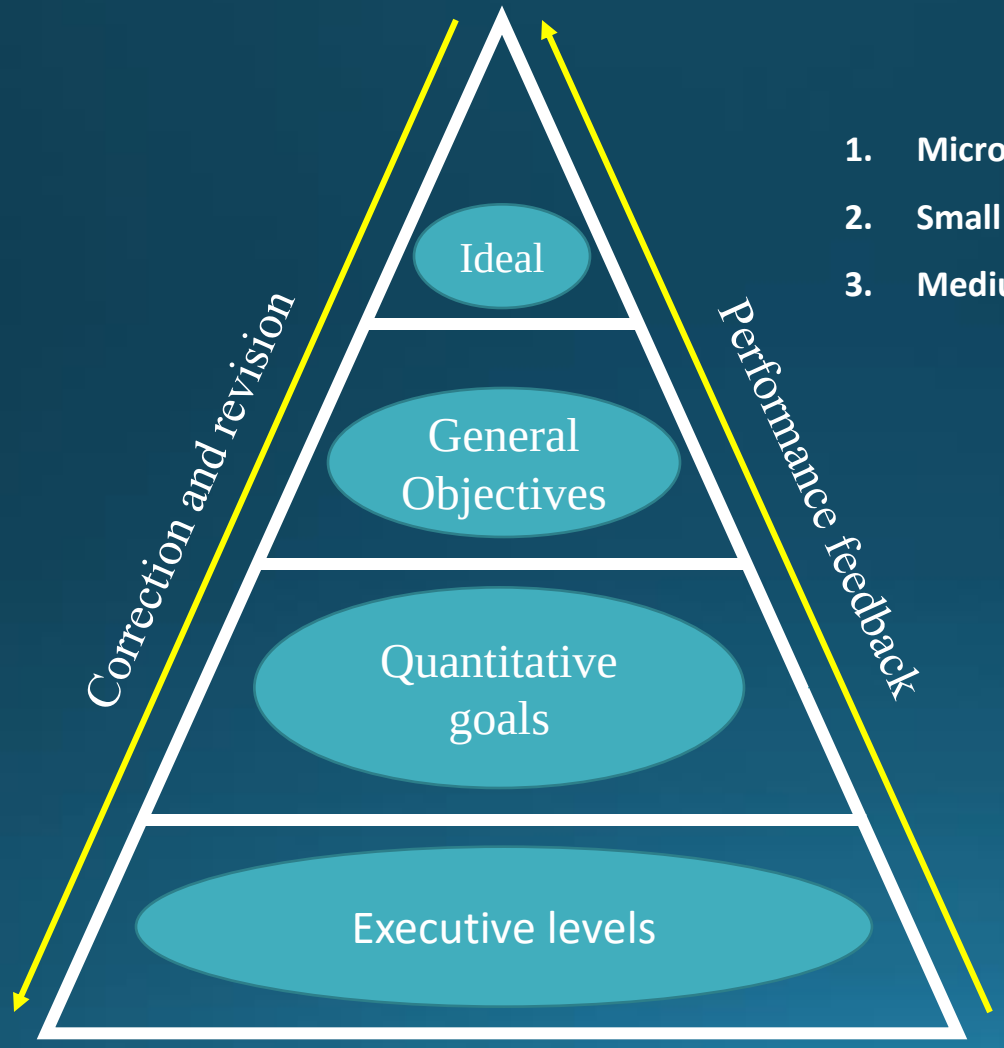
Implementation

- The prerequisite for implementing the TJS service is the existence of a unique field in both statistical and spatial datasets.



SDI Necessity

from very local to global levels



1. **Micro enterprises: 1-9 employees**
2. **Small enterprises: 10-49 employees**
3. **Medium enterprises: 249-50 employees**

SDI Necessity

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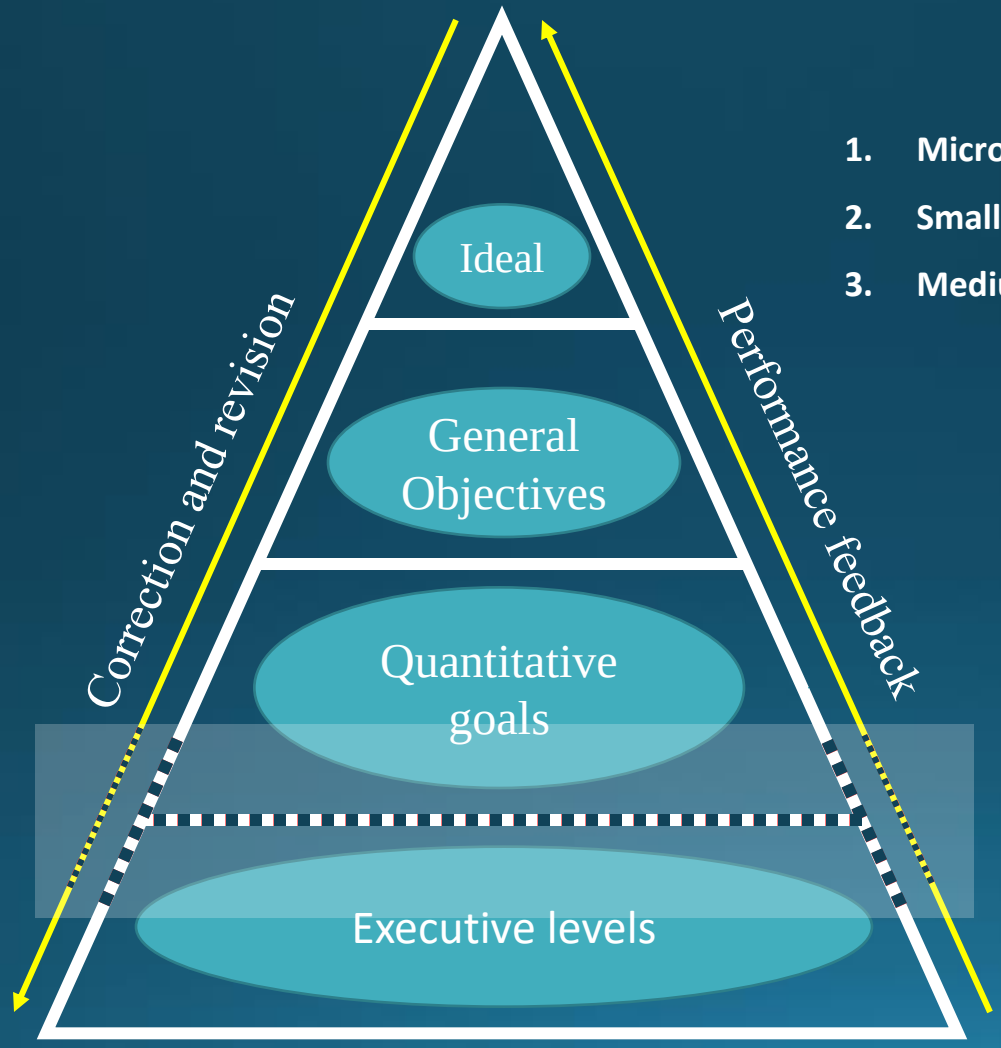

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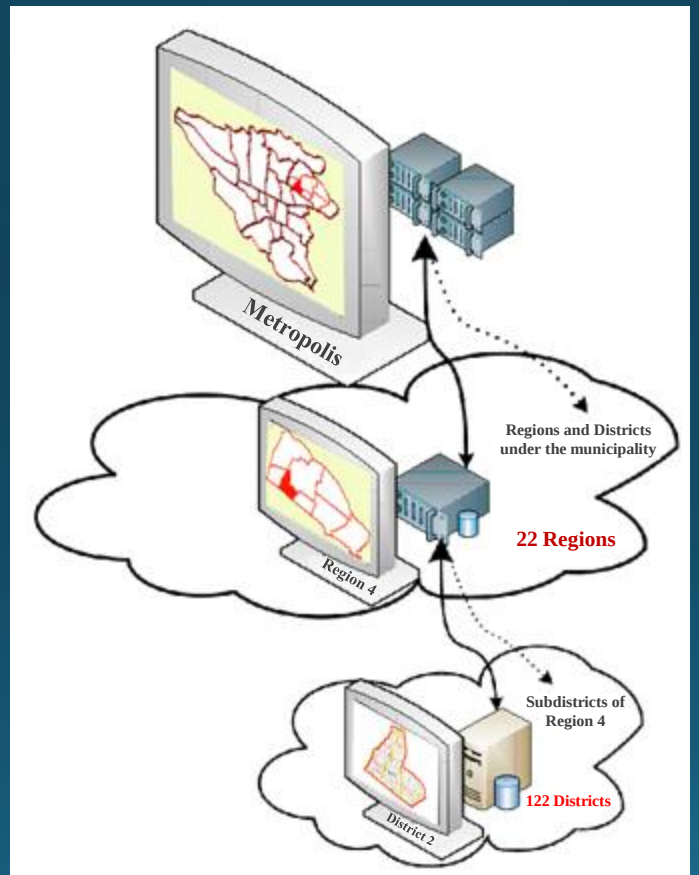
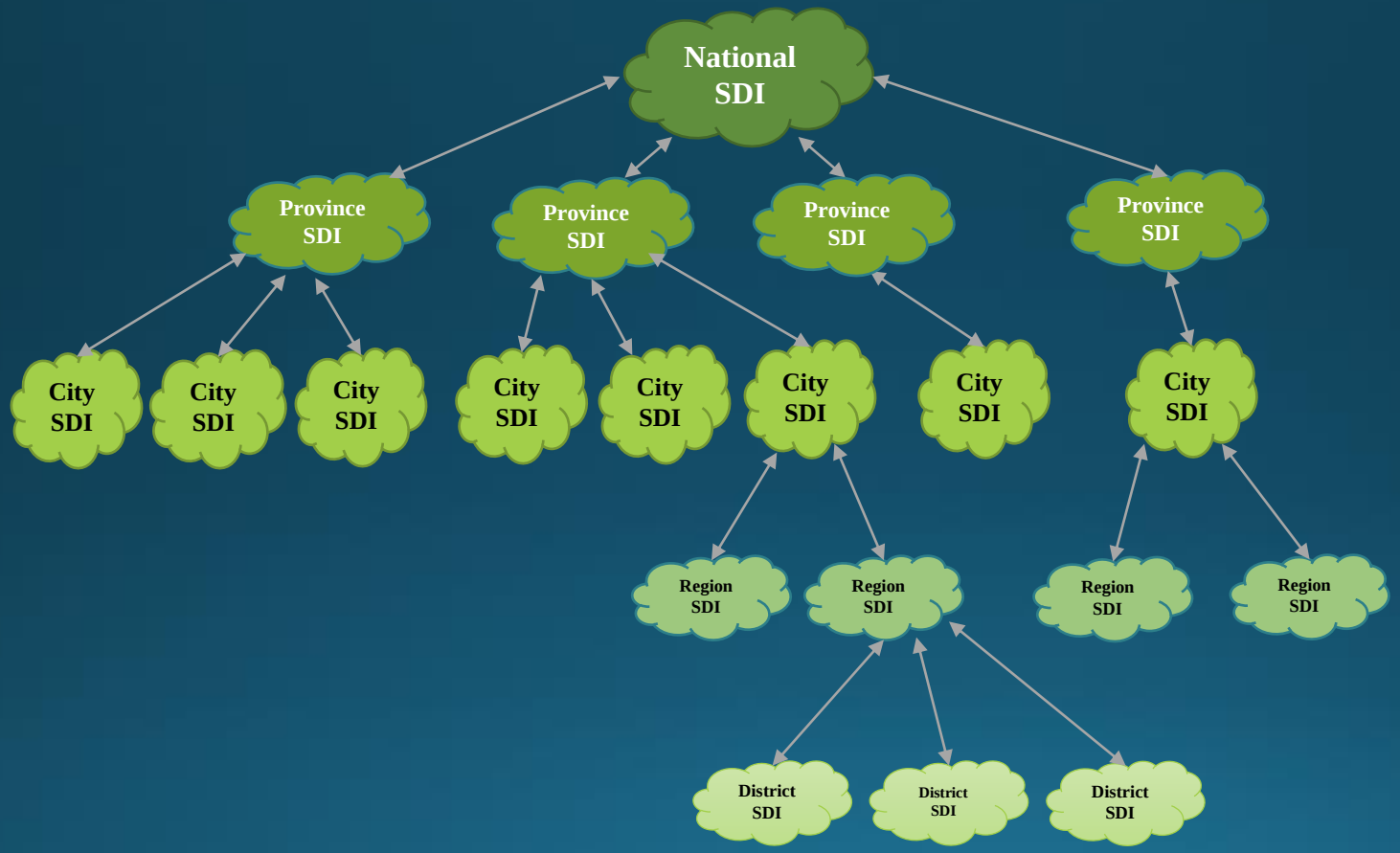


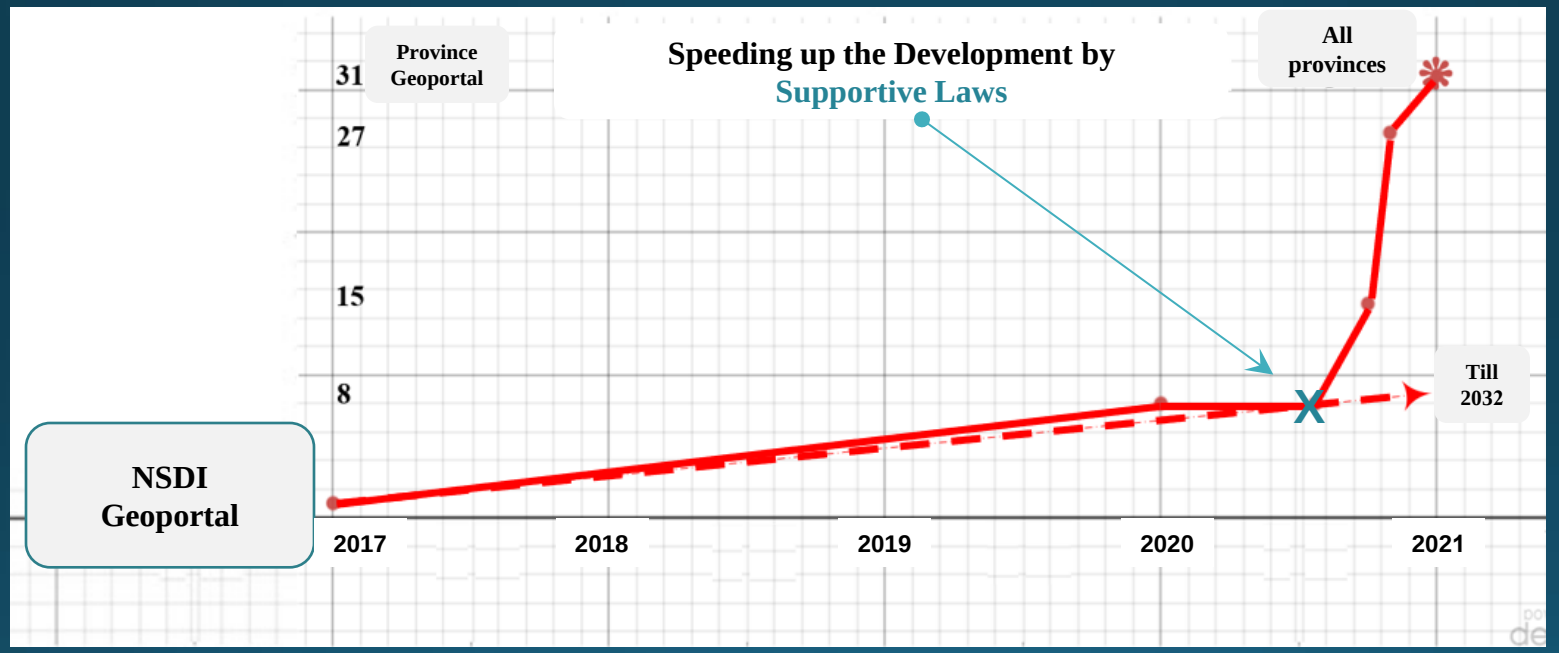
Monitoring metropolitan plans and programs with
Spatial Cloud Computing

SDI Necessity

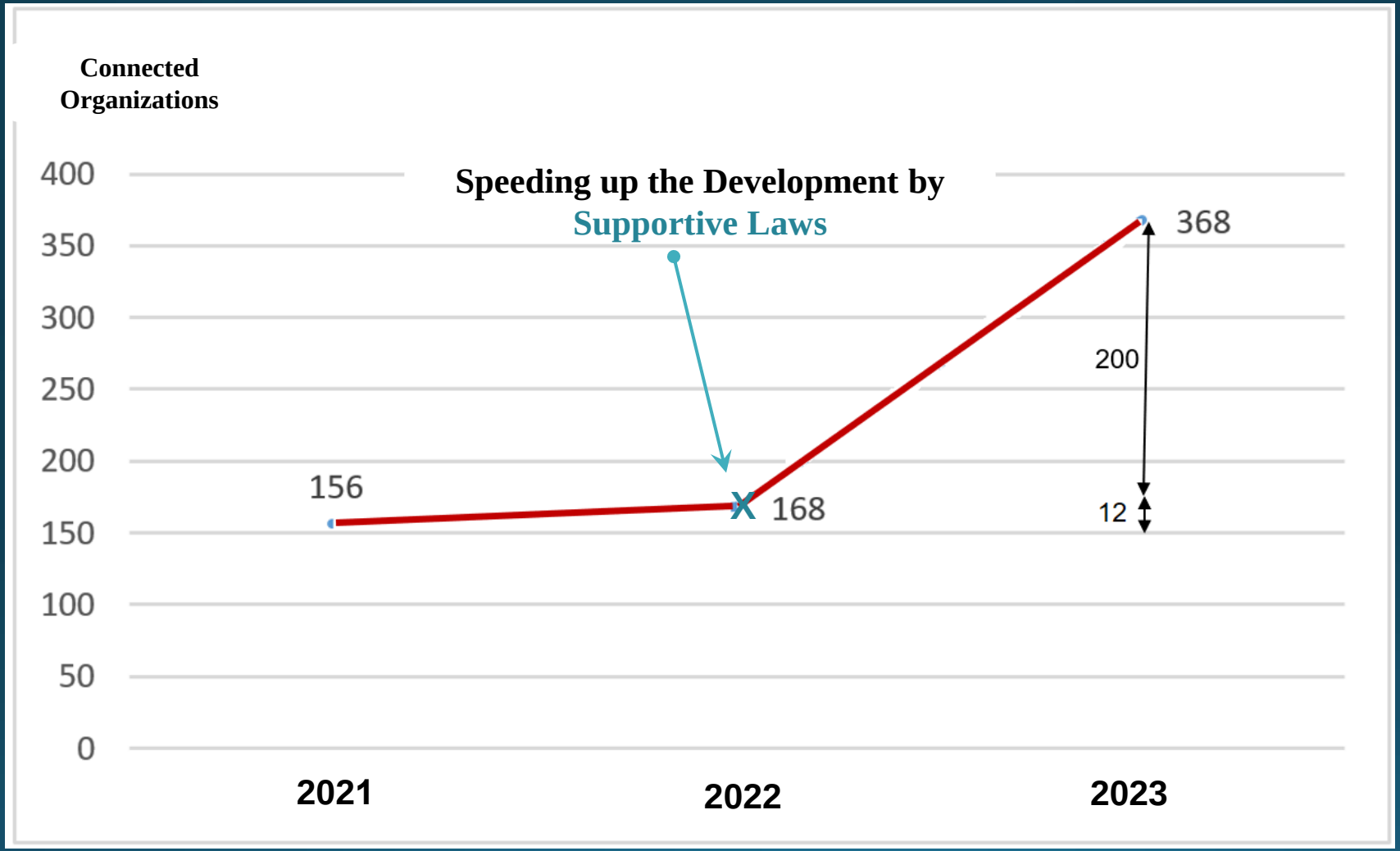
from very local to global levels



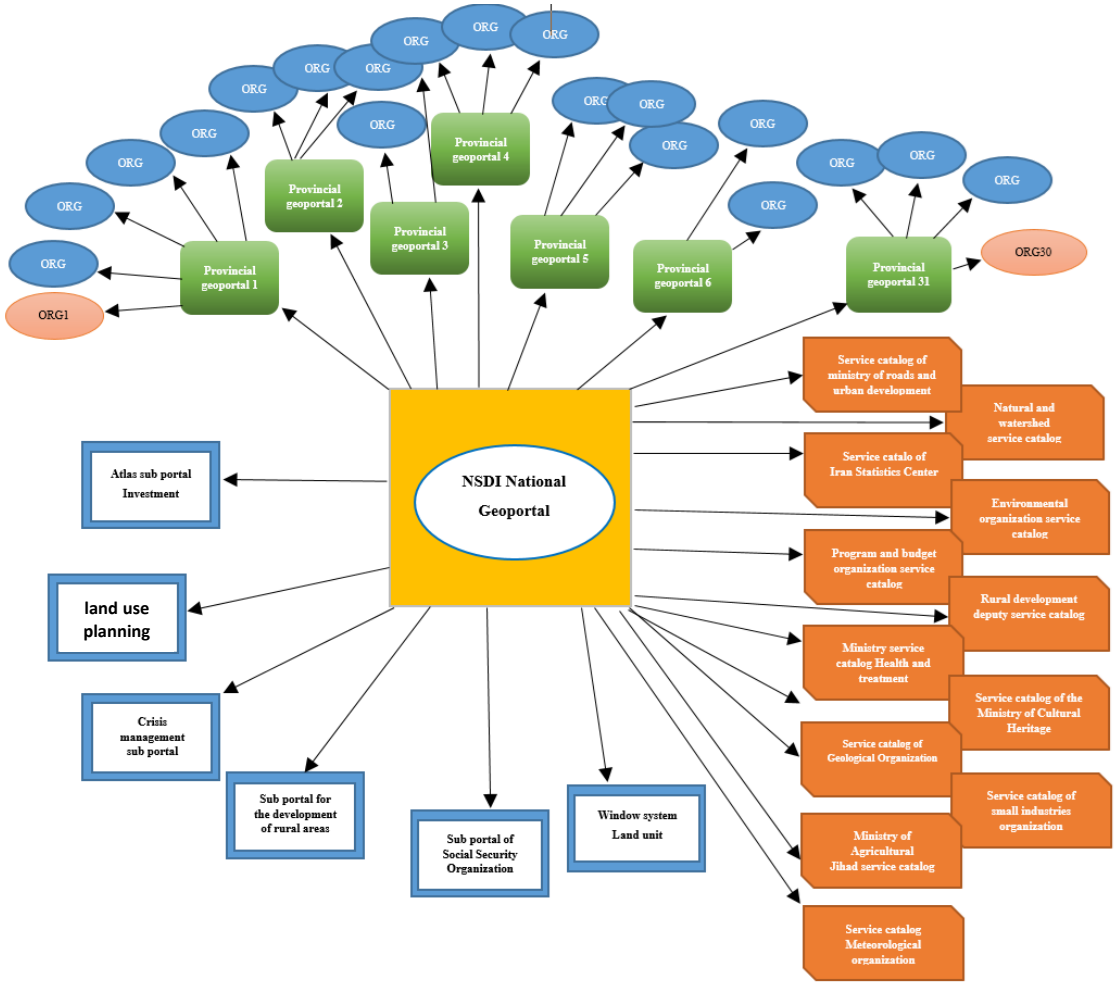
Iran NSDI Progress



Iran NSDI Progress

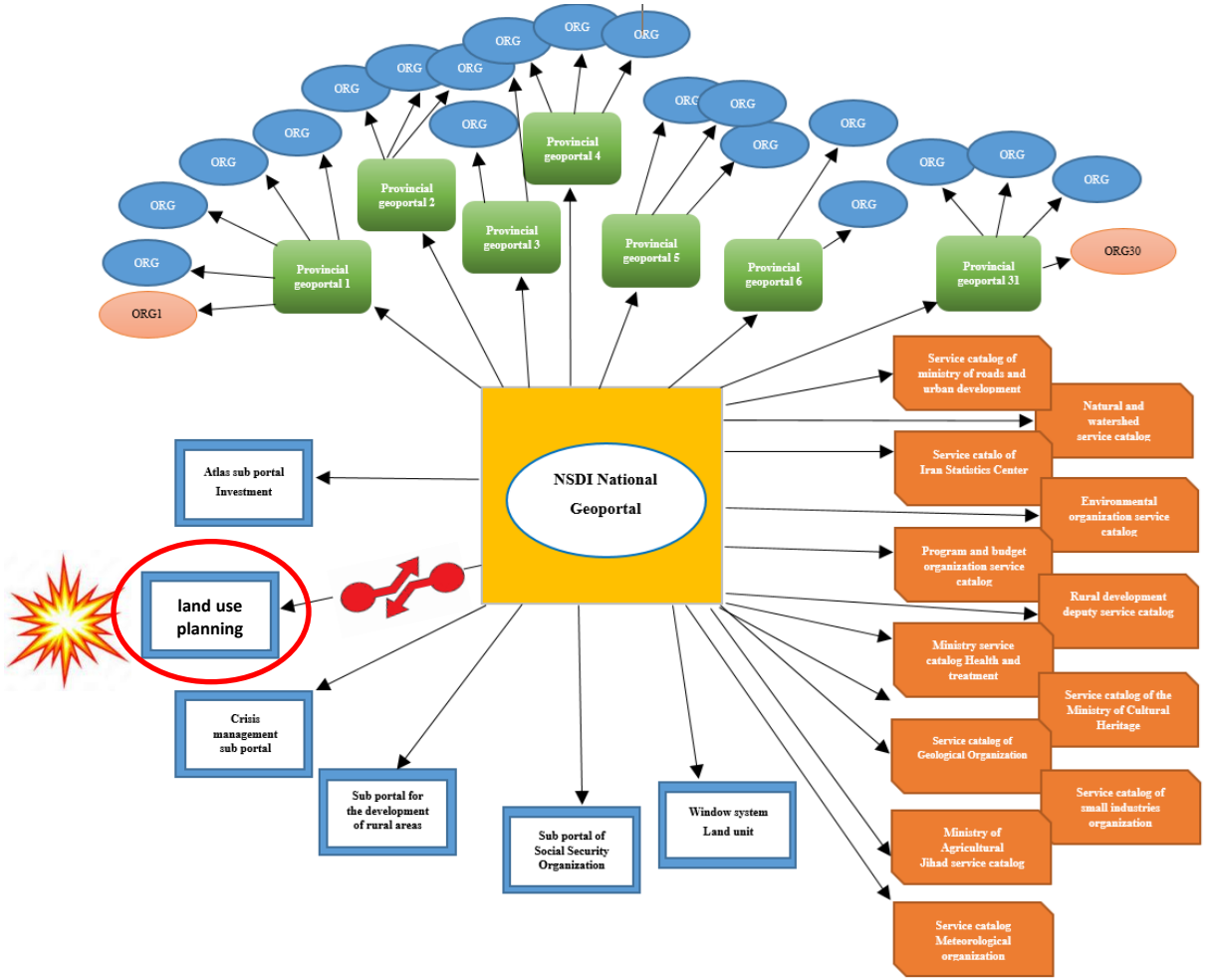


Components, Interoperability, and Participation in Iran's SDI



31	provincial geoportals
540	connected organizations in the National & Provincial SDIs
25000	Spatial services registered in National & Provincial SDIs
15	Connected service catalogs of national organizations
6	sub-portals of NSDI
90	organizations completing the documents on Information Security Management

"Facing a challenging issue"



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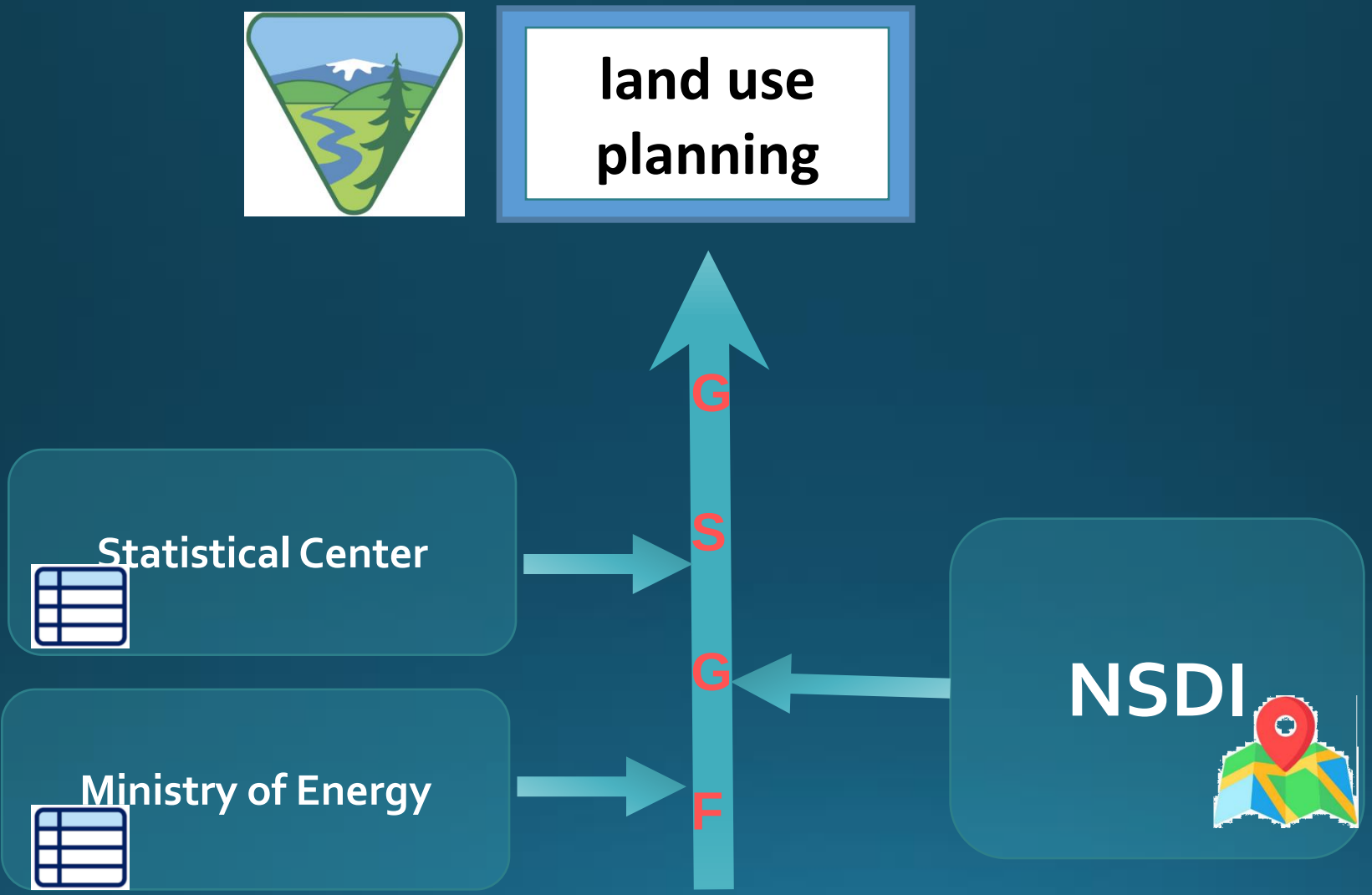
Multiple Descriptive layers is required for a Spatial layer

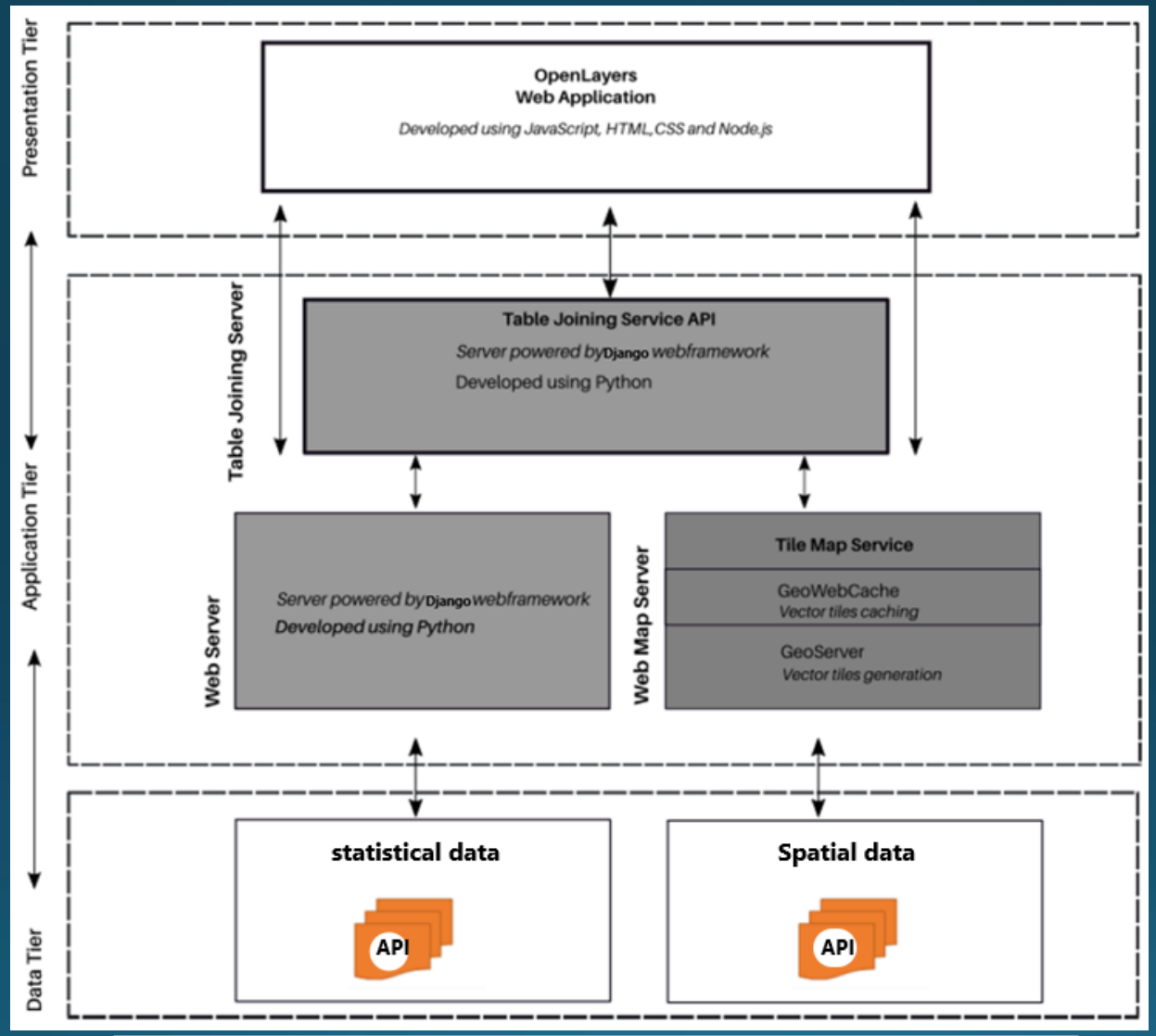
land use planning

Descriptive Data Custodians	Feature Type	Descriptive Data	Spatial Layer Custodian	Title	Num
Waiting for the completion of Attribute Data services from the Statistical Center of Iran through TJS	Polygon	City	Ministry of Roads and Urban Development	New Cities	n
		Diverse Classes of Population			
Waiting for the completion of the Ministry of Energy's Specialized Geoportal		Access to the Drinking Water			
		Access to the sewer network			

Utilizing GSGF Standards:
A Solution for Effective Data Integration

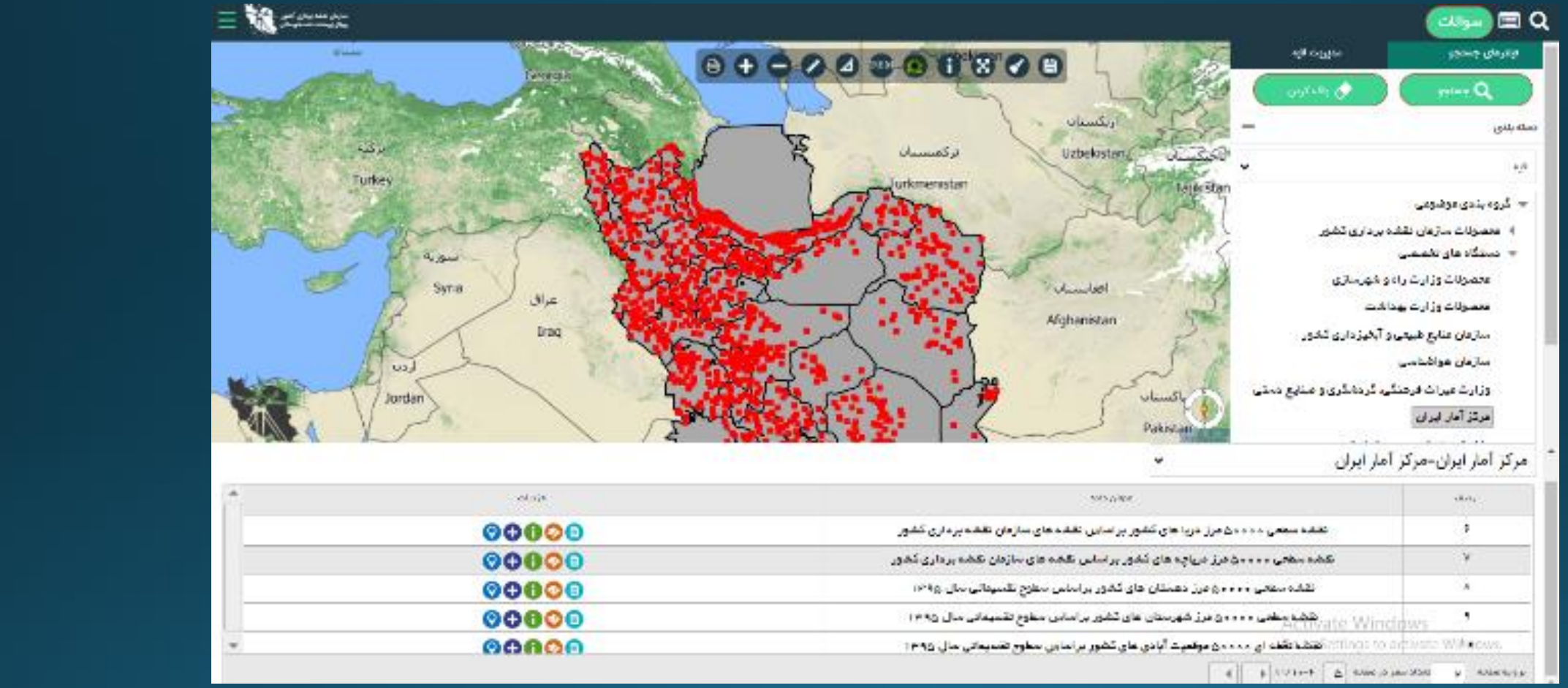


TJ Service Utilizing Architecture

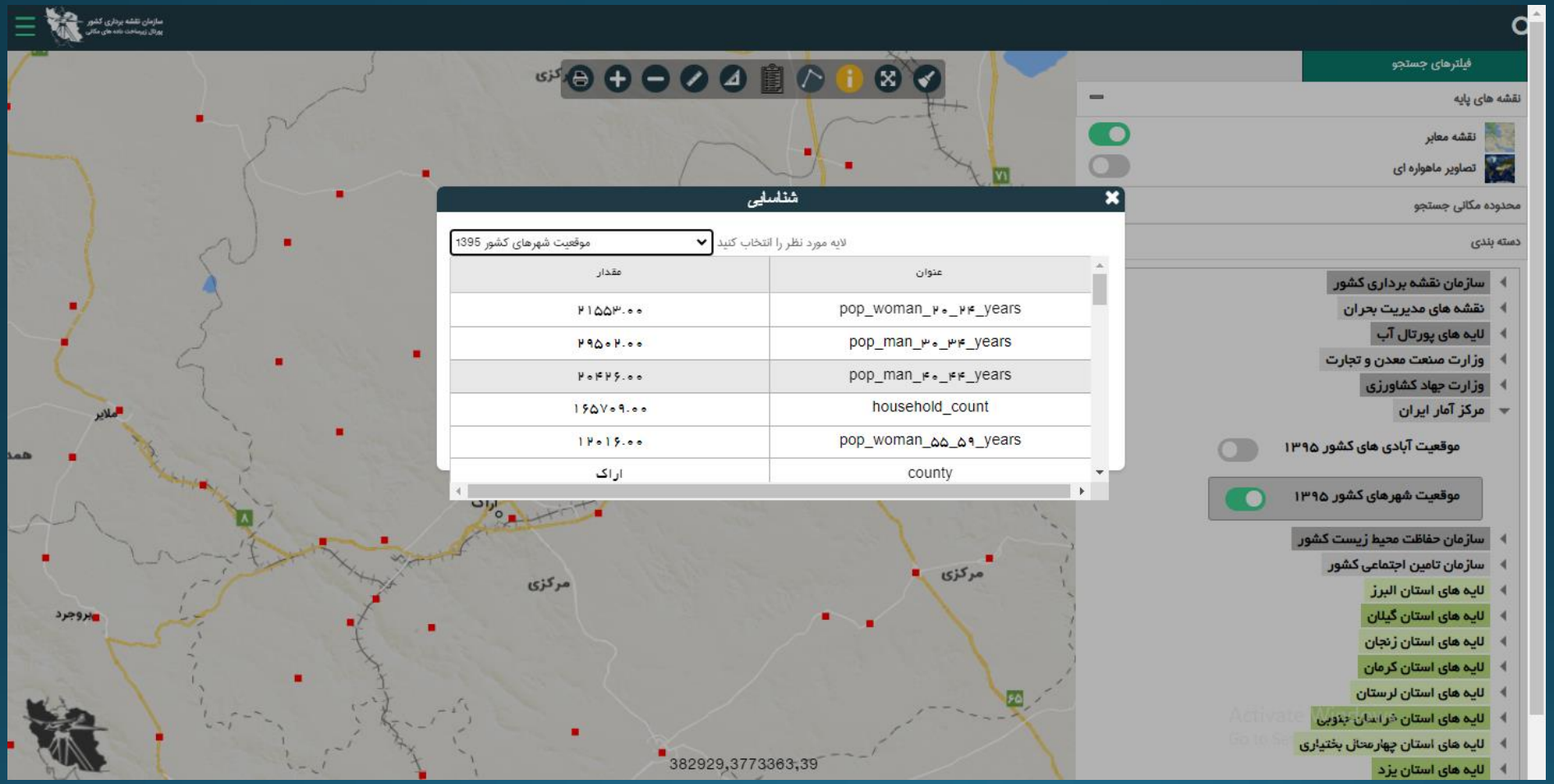


Sharon Chawanji MSc CartographyTechnische Universität München _ Germany

Result


Turkey
Syria
Iraq
Jordan
Turkmenistan
Uzbekistan
Afghanistan
Pakistan
مرکز آمار ایران-مرکز آمار ایران

Result


شناسایی
لایه مورد نظر را انتخاب کنید
موقعیت شهرهای کشور 1395
عنوان
مقدار
pop_woman_۲۰_۲۴_years
۲۱۵۵۳.۰۰
pop_man_۳۰_۳۴_years
۲۹۵۰۲.۰۰
pop_man_۴۰_۴۴_years
۲۰۴۲۶.۰۰
household_count
۱۶۵۷۰۹.۰۰
pop_woman_۵۵_۵۹_years
۱۲۰۱۶.۰۰
county
اراک
فیلترهای جستجو
نقشه های پایه
نقشه معابر
تصاویر ماهواره ای
محدوده مکانی جستجو
دسته بندی
سازمان نقشه برداری کشور
نقشه های مدیریت بحران
لایه های پورتال آب
وزارت صنعت معدن و تجارت
وزارت جهاد کشاورزی
مرکز آمار ایران
موقعیت آبادی های کشور ۱۳۹۵
موقعیت شهرهای کشور ۱۳۹۵
سازمان حفاظت محیط زیست کشور
سازمان تامین اجتماعی کشور
لایه های استان البرز
لایه های استان گیلان
لایه های استان زنجان
لایه های استان کرمان
لایه های استان لرستان
لایه های استان خراسان جنوبی
لایه های استان چهارمحال بختیاری
لایه های استان یزد
382929,3773363,39

Conclusion

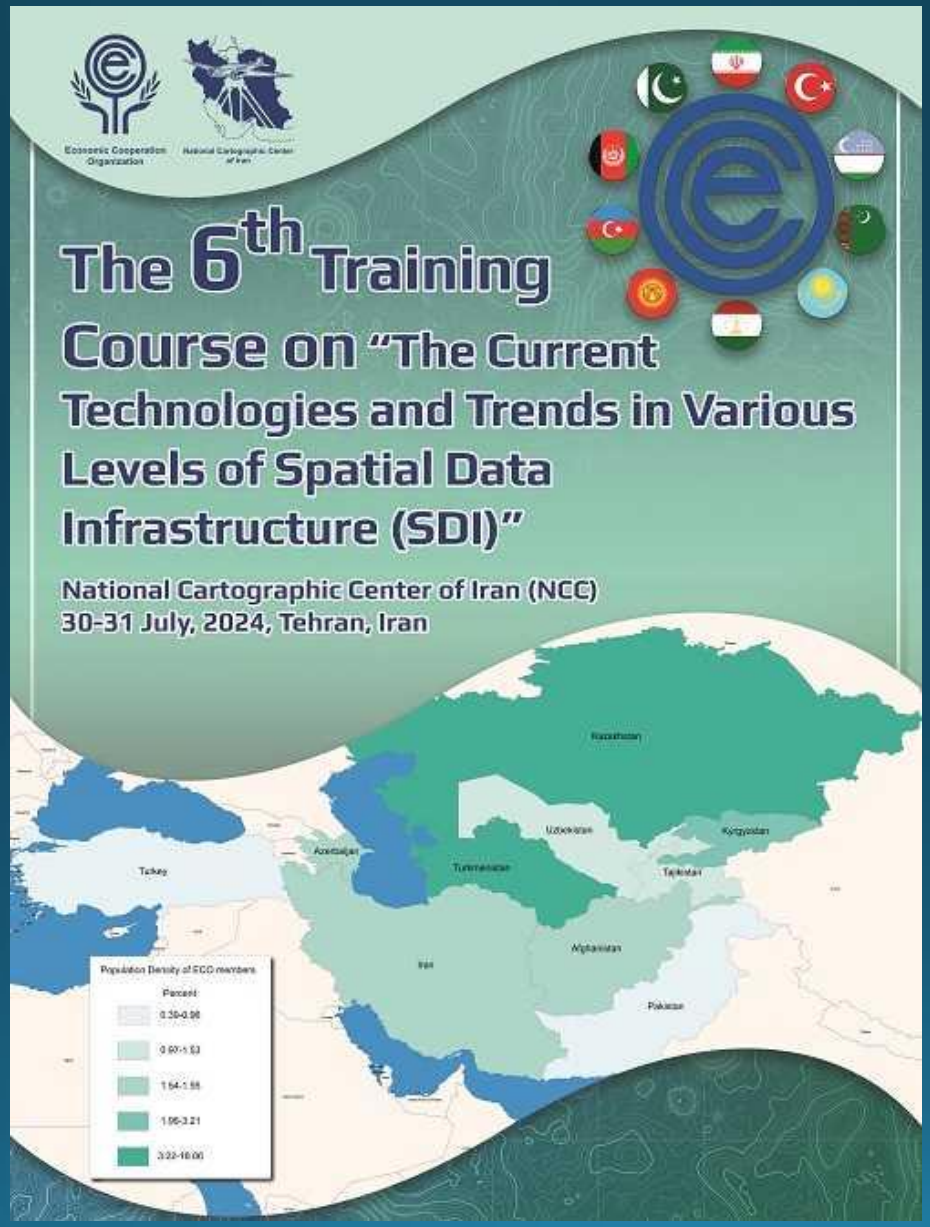
Successful GSGF implementation relies heavily on establishing a robust Spatial Data Infrastructure (SDI).

Providing spatial data via standard, TJ services enables real-time, online access to both spatial and statistical information.

This integration of spatial and statistical data allows for comprehensive analysis, supporting informed decision-making across various sectors, including economic and social domains.

The mentioned successes were achieved after we became familiar with GSGF standards and documents during these UN-GGIM-AP meetings.

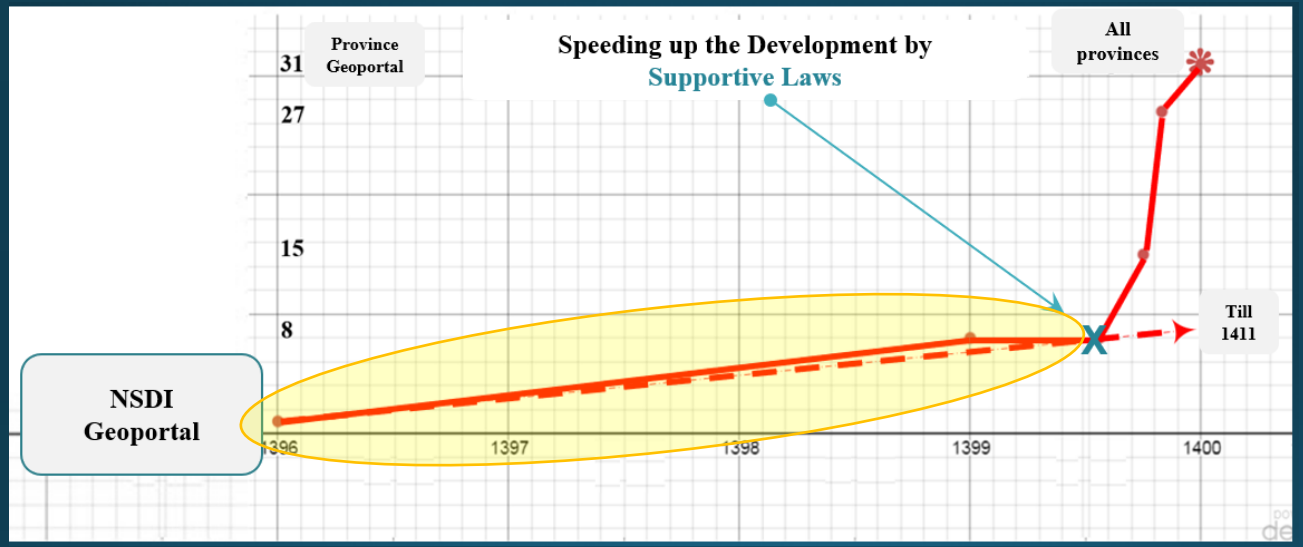
Fostering Regional Collaboration by Practical Experiences

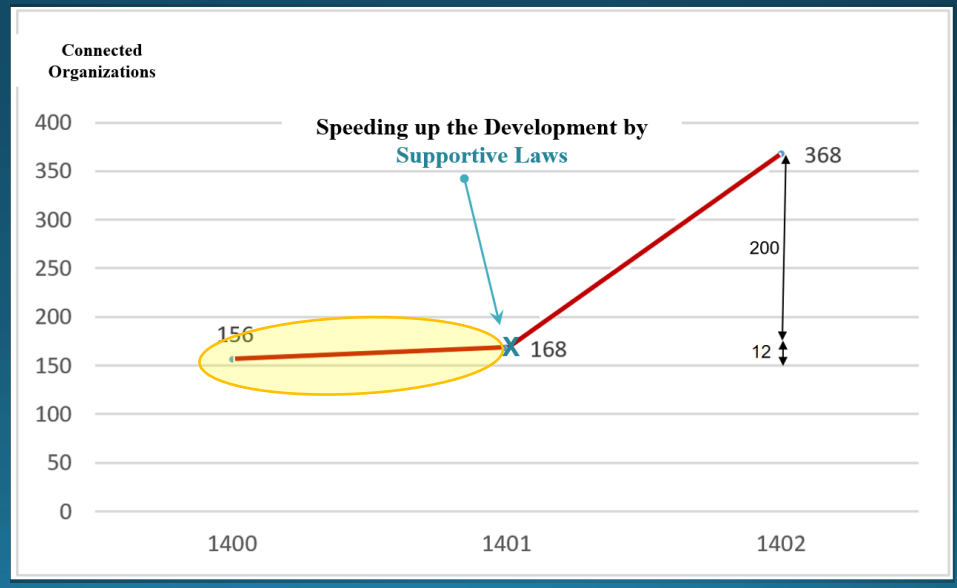


Challenges and Lessons Learned

- open-source technology
- Security
- Accuracy and Quality
- Other GSGF Standards in addition to TJS
- Integration AI capabilities and SDI / GSGF

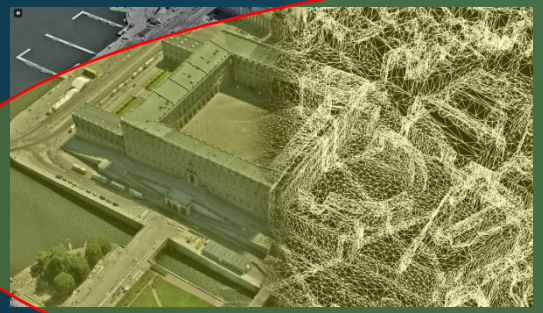
Future actions – National Laws and Policy – Key Element





Future actions

3D Mesh



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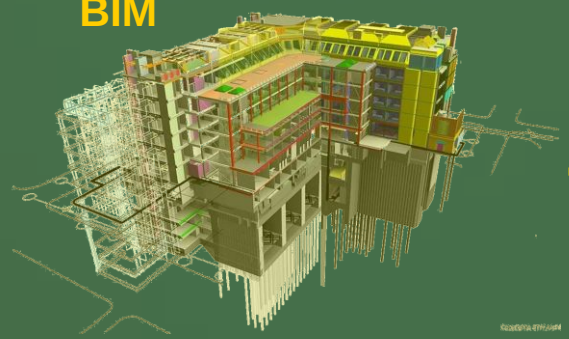
BIM



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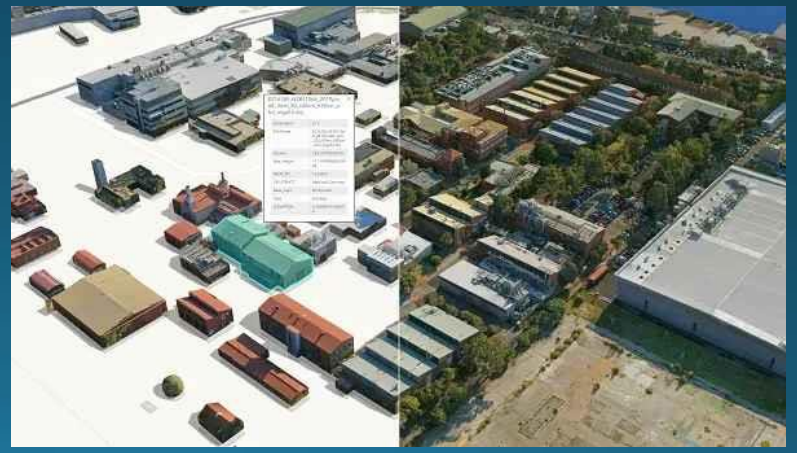
IoT

Spatial Digital Twins

Spatial Digital Shadows



Thank You

Cherrapunji