

Secure Land Rights and Smart Cities - Making It Work for Sustainable Development

Smart Cities for All; Strategic Pathways

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CSDILA

THE CENTRE FOR SPATIAL
DATA INFRASTRUCTURES
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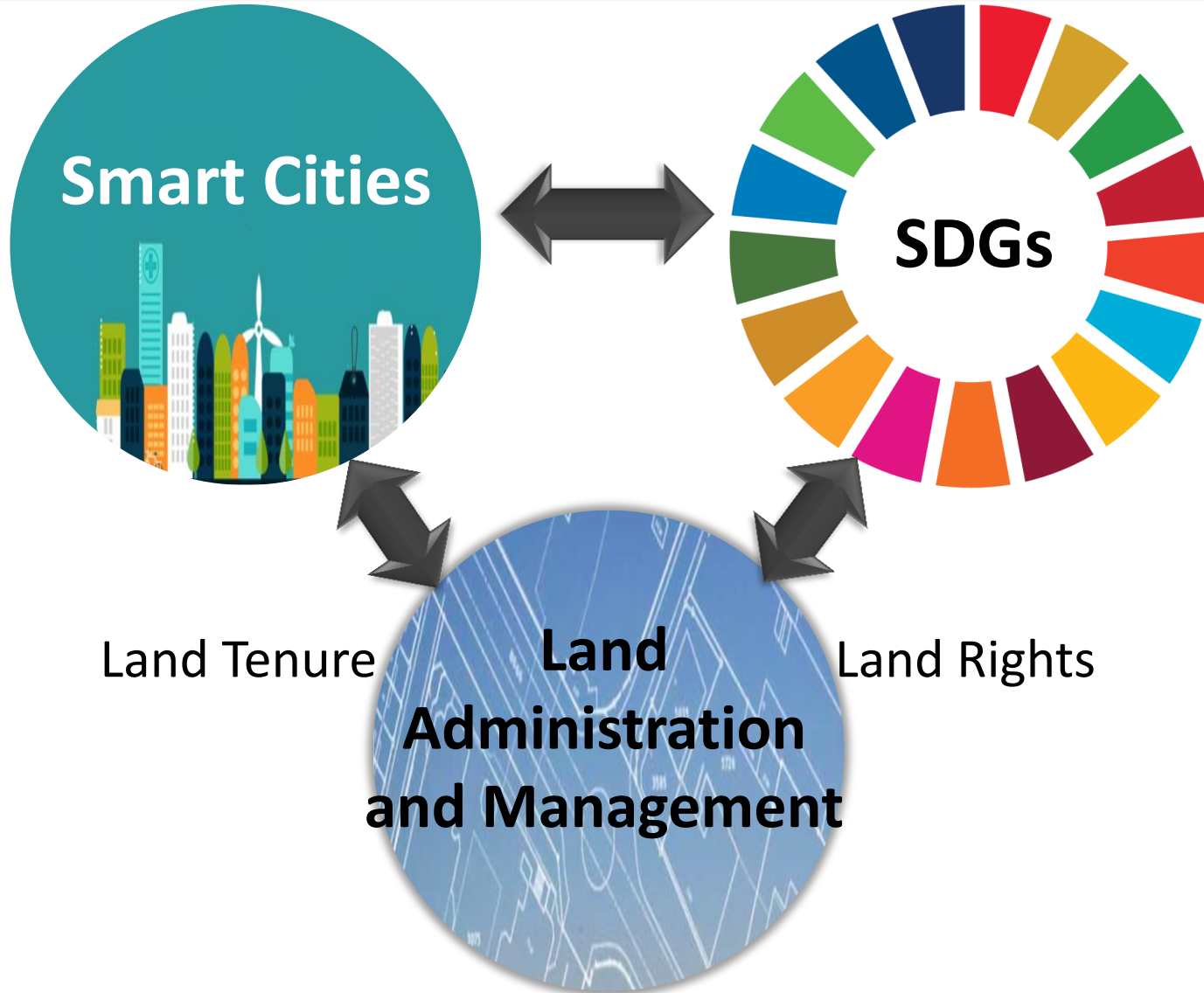
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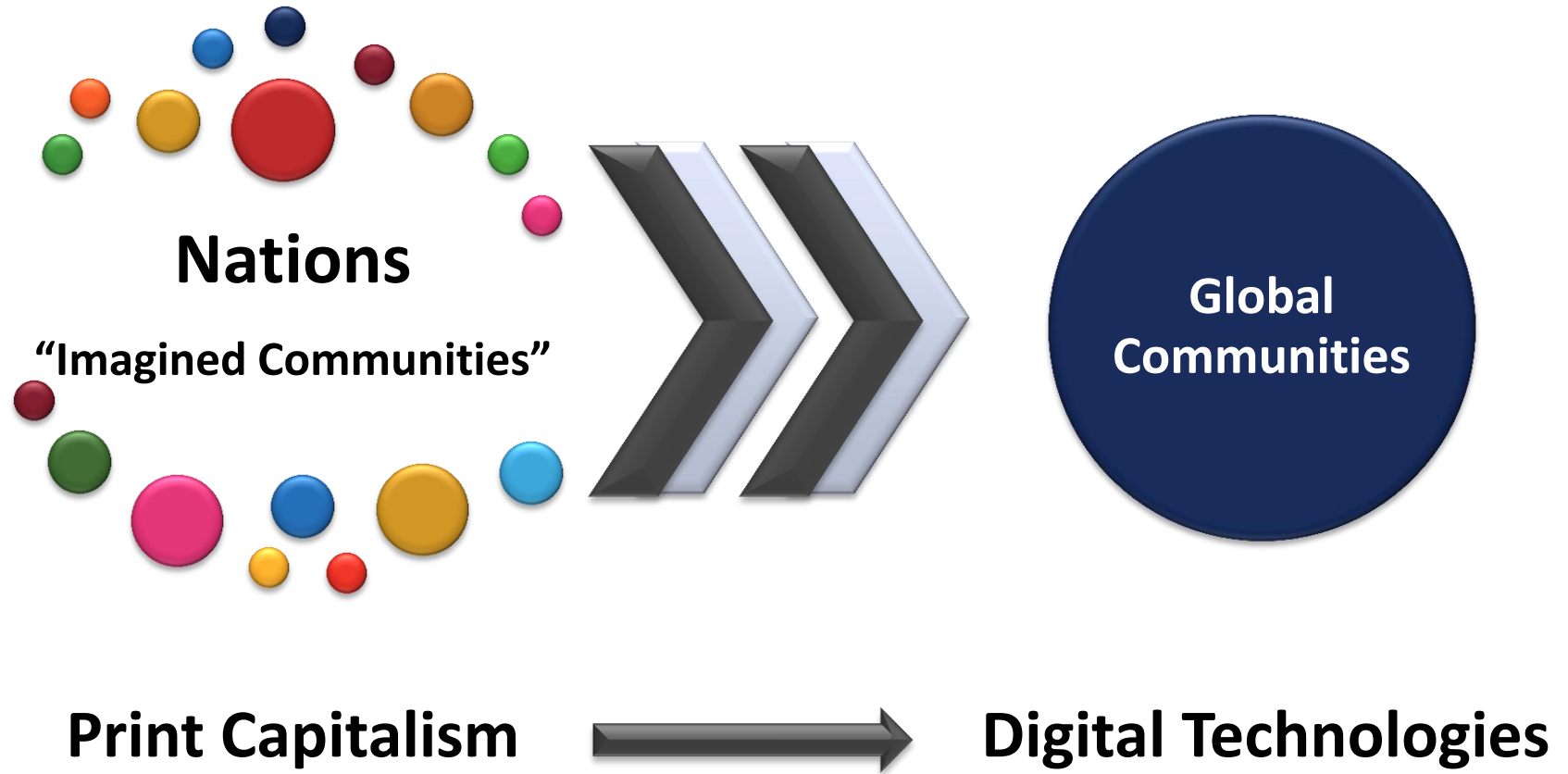
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Multidisciplinary Effort



Hyper-Connected Communities



Interconnectivity of Global Challenges

1 The challenges and problems of one **nation** are not independent from others, they are connected on a **global** scale.

2 The challenges and problems in **different domains** (economic, environmental, social, technical, etc.) are connected.

The development of inclusive, productive, sustainable, and timely solutions are subject to the **connectivity of our challenges.**

Understanding Our World



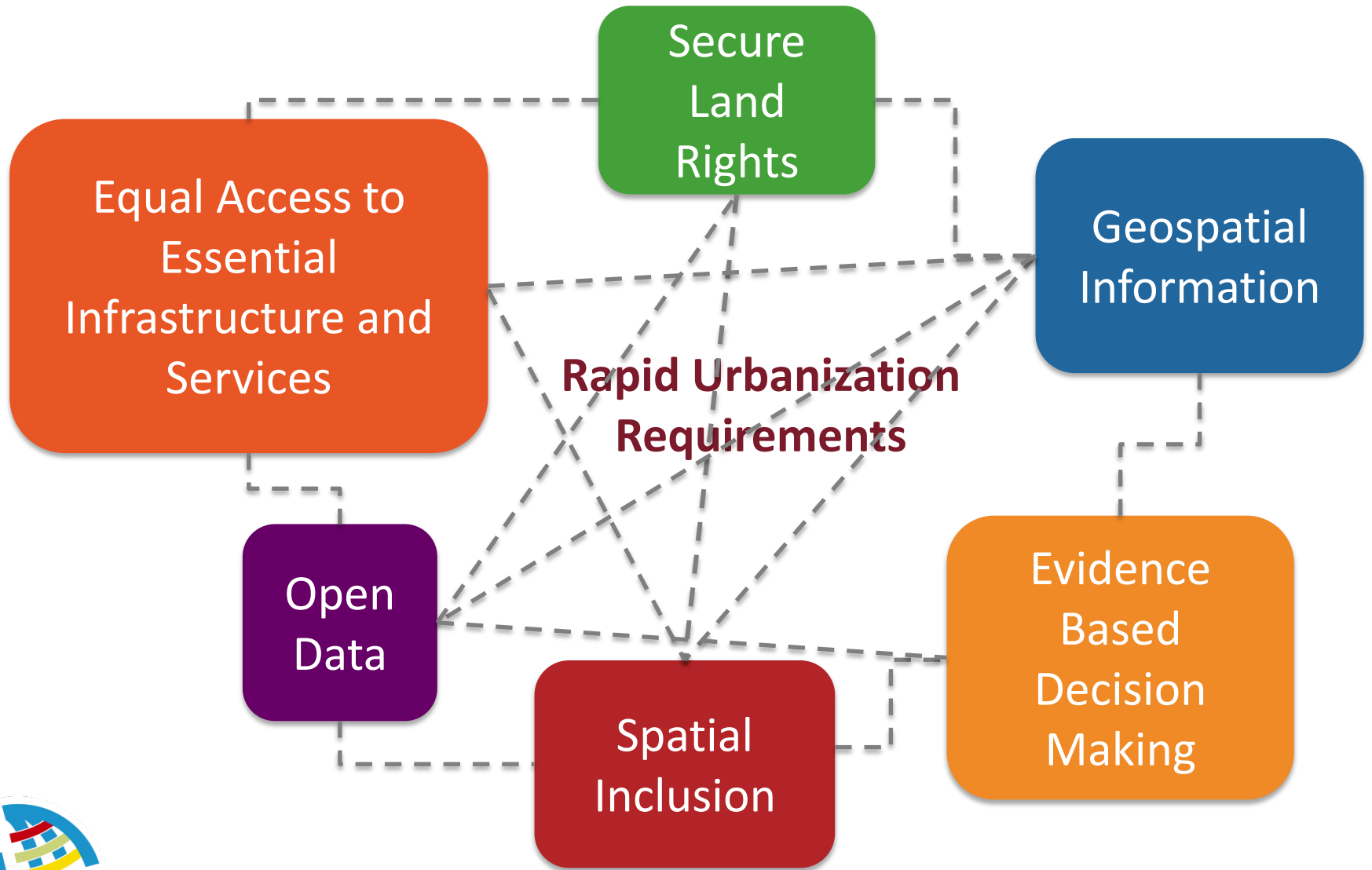
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Rapid Urbanization: A Global Challenge



Global Challenges Have Location-Based Patterns

SDGs Targets and Indicators Related to Land Administration and Spatial Data

SDG	Target							Indicator					
1	1.4	1.5						1.4.1	1.4.2	1.5.1			
2	2.3	2.4	2.c					2.4.1					
3	3.3	3.8	3.9	3.d				3.3.1	3.3.2	3.3.3	3.3.4	3.9.1	3.9.2
4	4.7	4.a						4.7.1					
5	5.a							5.a.1	5.a.2				
6	6.1	6.3	6.4	6.5	6.6	6.a		6.1.1	6.3.1	6.4.2	6.5.1	6.6.1	
7	7.1	7.2	7.a					7.1.1	7.1.2	7.2.1			
8	8.4							8.4.1					
9	9.1	9.4	9.a					9.1.1	9.4.1				
10	10.3	10.7						10.7.2					
11	11.1	11.2	11.3	11.5	11.6	11.7	11.b	11.1.1	11.2.1	11.3.1	11.5.2	11.6.1	11.7.1
12	12.2	12.4						12.2.1	12.4.2				
13	13.1	13.2	13.b					13.1.2					
14	14.1	14.2						14.1.1					
15	15.1	15.3	15.4	15.6	15.8			15.1.1	15.3.1	15.4.1			
16	16.7							16.7.2					
17	17.7	17.18	17.19					17.18.1					



Solution: Smart Cities? Smart Cities for All

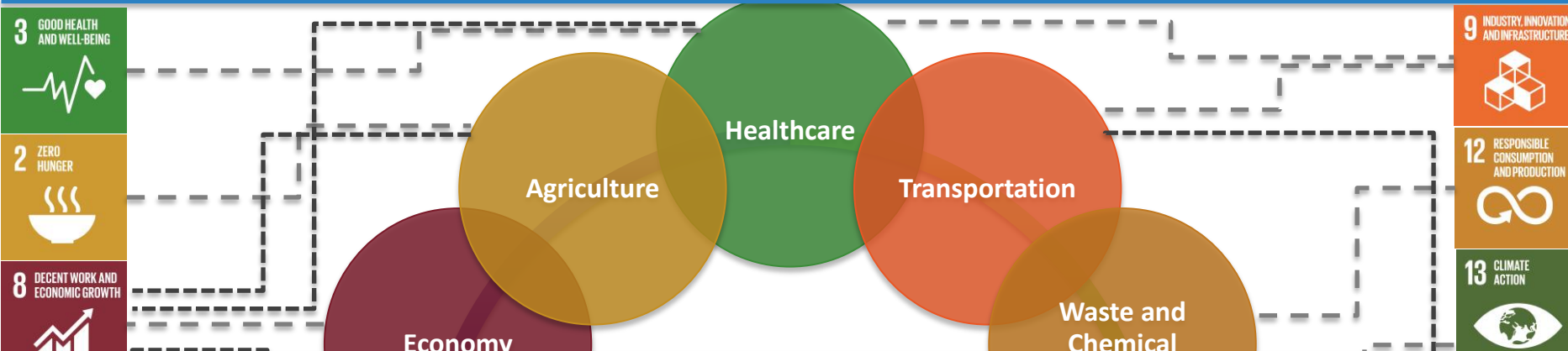
A smart city aims to provide the optimal solution for the challenges that rise from rapid urbanization.

The function of smart cities should exceed beyond the application of ICTs and should incorporate **sustainability, inclusivity, and good governance.**

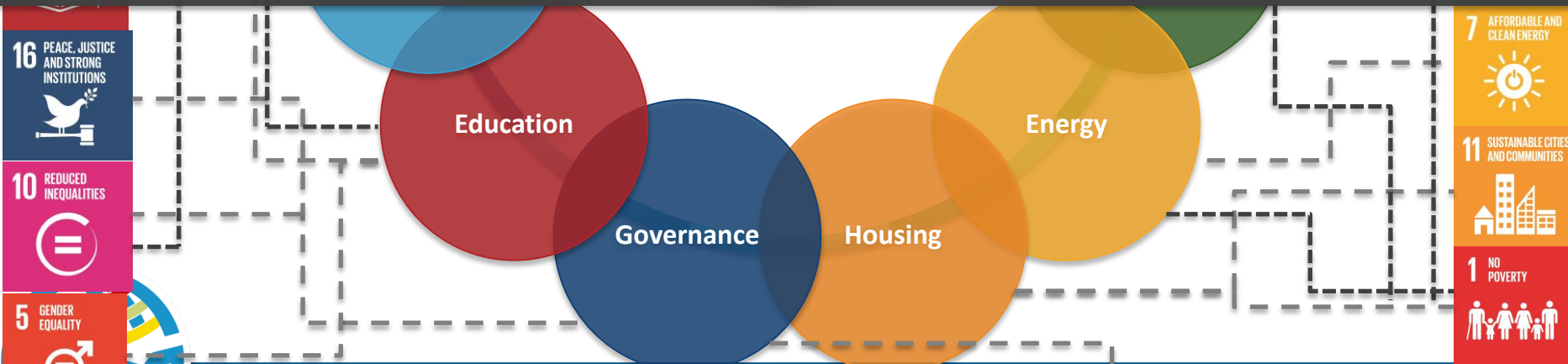
Smart Cities for All



Smart City Components - SDGs Linkage



Ontology-Based Infrastructure



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17 PARTNERSHIPS FOR THE GOALS



Leaving No One Behind

In 2015, 193 Member States adopted the 17 SDGs and subsequently vowed to leave no one behind in the process.

The call to improve the **quality of life** for every individual holds the global community responsible for developing **future smart cities** that have the **capacity to function under diverse circumstances**.

Infrastructures that are **scalable, adoptable, localizable, and inclusive**.



Mobilization and Action



SDG Indicators Relationship with SDI Hierarchy

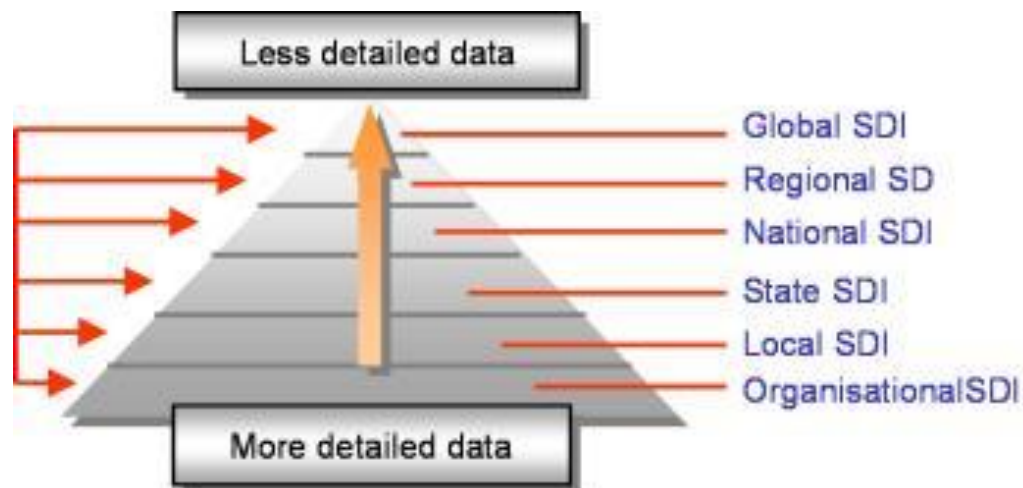
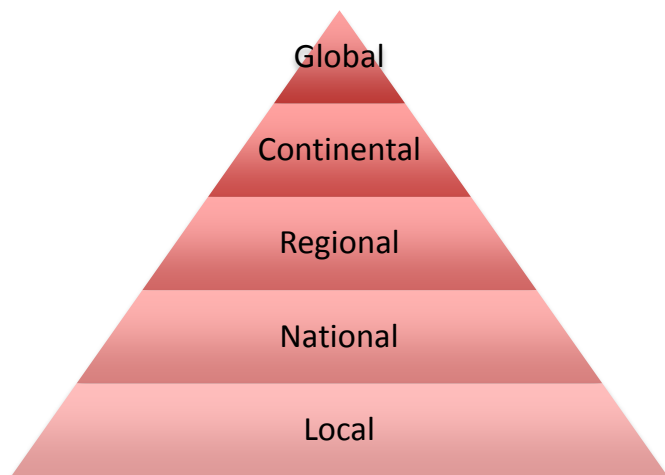
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National statistical systems need to invest in the technology and skills necessary to **collect** and **integrate data** from multiple sources at different levels of detail.

(The Sustainable Development Report 2017)



(Rajabifard and Williamson, 2001)



SDGs Research Registry



Developed by the Center for Disaster Management and Public Safety

Indicator Registry Infrastructure

UN-GGIM Academic Network will be developing a similar platform for SDGs related research; linking the research across different **locations, goals, and disciplines.**



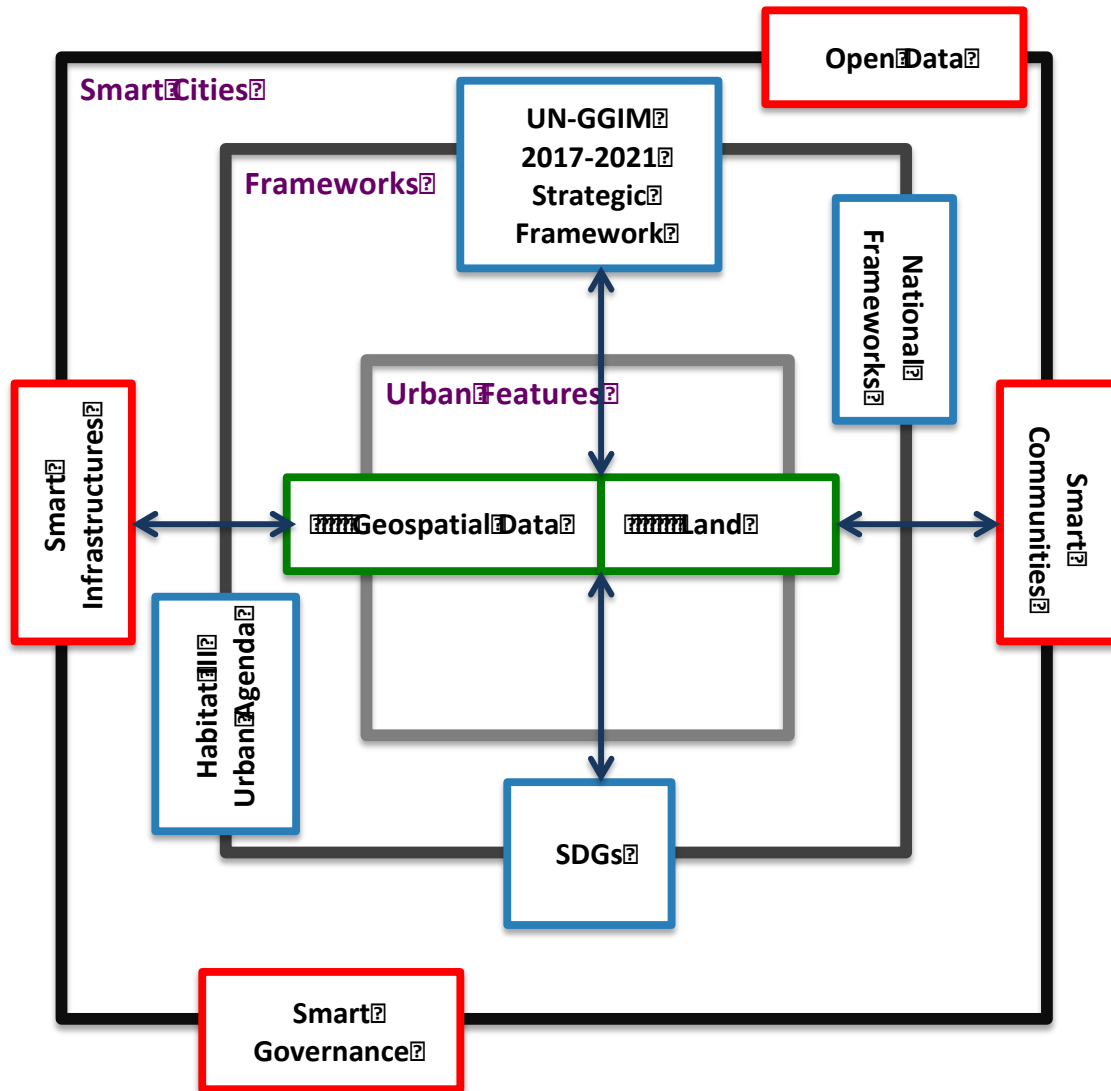
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Towards a Roadmap-Early Developments



Fundamental Requirements

- Data (*open data, linked data, big data, authoritative and volunteer and crowdsource data*)
- Development of Standards (ISO, OGC, etc.)
- Infrastructures
- Indicator Development and Registry
- Community Engagement
- National Framework and Strategic Roadmap
- ...



Take-away Message



Smart Cities for All

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