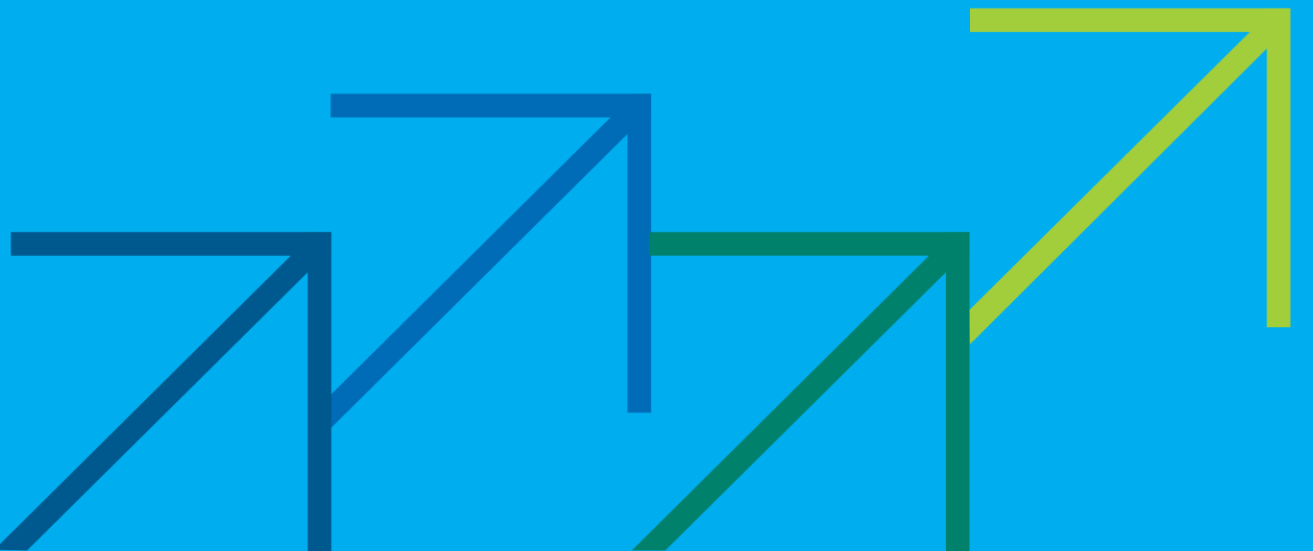
WORLD BANK GROUP | KOREA GREEN GROWTH TRUST FUND | Ministry of Economy and Finance

KGID 2025 Green Growth: The Path to Sustainable Jobs

Session: Urban-Livable Cities Building Inclusive and Resilient Cities through Smart Development and Urban Regeneration

Jessica Grisanti, Urban Specialist, WBG



Context & Background

🌍 Urbanization Trend

By 2050, 6.7B people will live in cities

🏙️ Cities & Services

Provide 💧 Water | ⚡ Energy | 🚇 Transport | 🏥 Health | 🏫 Education | 🏠 Housing

💡 Digital Opportunity

Many cities are eager to include digital technologies to improve efficiency in the service delivery

Global Smart City Partnership Program (GSCP)

Support task teams to incorporate digital solutions into our projects.

🌎 65+ TA engagements in 44 countries
✅ Diagnostics are tailored, but artisanal and hard to scale

Challenges

⏳🔀 Months-long assessments
Different frameworks
📦 Existing's tools are siloed & static

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Digital Ecosystem Assessment Tool for Smart and Inclusive Cities

The Toolkit is designed to support task teams and cities to produce a rapid and structured assessment of a city's digital maturity across multiple sectors powered by Gen AI

🎯 Purpose

- Produce, rapid, structured assessment
- Identify gaps & investments

⚠️ Why it Matters

- Allow cities to identify opportunities and enable teams to respond more quickly and in a systematic way.

🤖 How it Works

- We (Urban +DT + ITS) developed a framework to capture 130 indicators around 3 assessment areas
- Using Gen to AI to gather data

📑 Produce a diagnostic report on a City's Digital Maturity Across Multiple Sectors
📊 Produce visualizations & benchmarking
📌 Produce tailored diagnostics & recommendations

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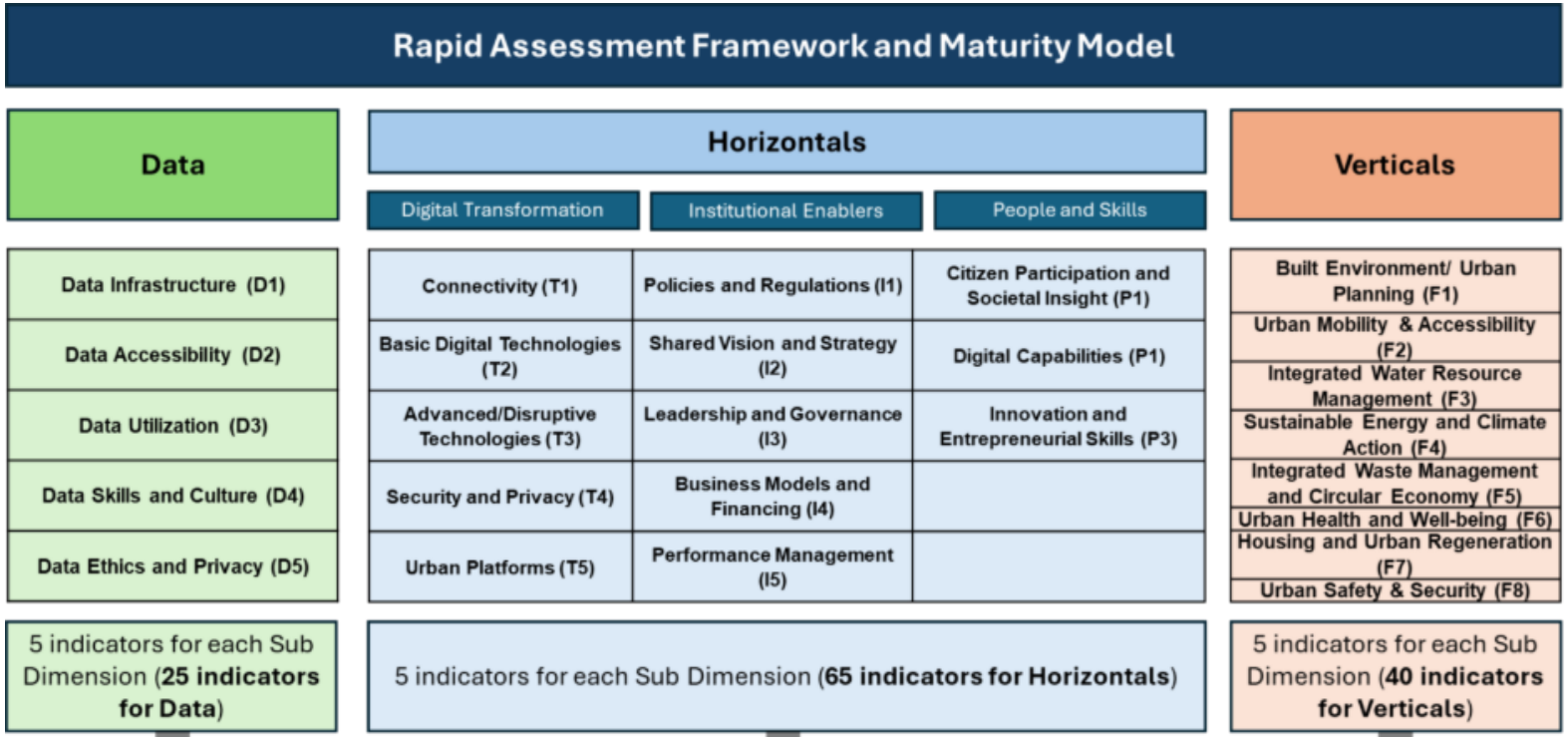
Maturity Assessment Framework



The framework assess the following areas:

- **Data** (D1–D5), which captures core digital infrastructure and governance capacities;
- **Horizontals**, which span cross-cutting enablers including Digital Transformation (T1–T5), Institutional Enablers (I1–I5), and People and Skills (P1–P3);
- **Verticals** (F1–F8), which focus on sectoral applications such as mobility, energy, waste, and safety.

Each sub-dimension (e.g., “Connectivity,” “Urban Safety & Security,” or “Data Ethics and Privacy”) is evaluated using a structured set of five indicators

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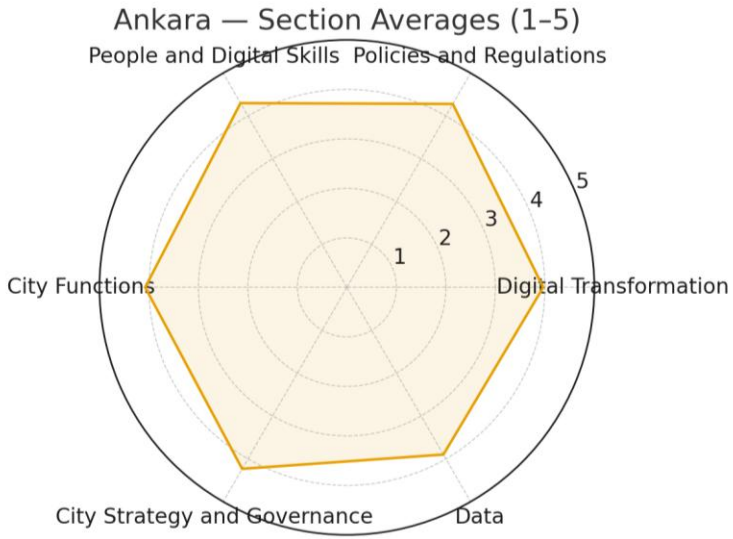
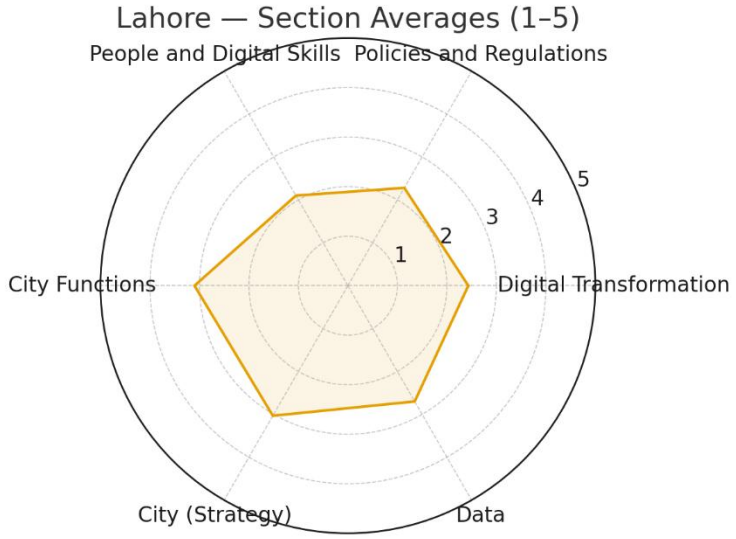
Maturity Assessments Examples



Overall maturity: 4.1 out of 5. The city shows high capability across most sections, with stronger performance in institutional enablers and service operations. Data management and policy consistency are comparatively advanced, which supports scale and reuse.



Overall maturity: 2.6 out of 5. City Functions and City Strategy and Governance are strongest. People and Digital Skills and Policies and Regulations are l owest. Data and Digital Transformation sit in the mi ddle.

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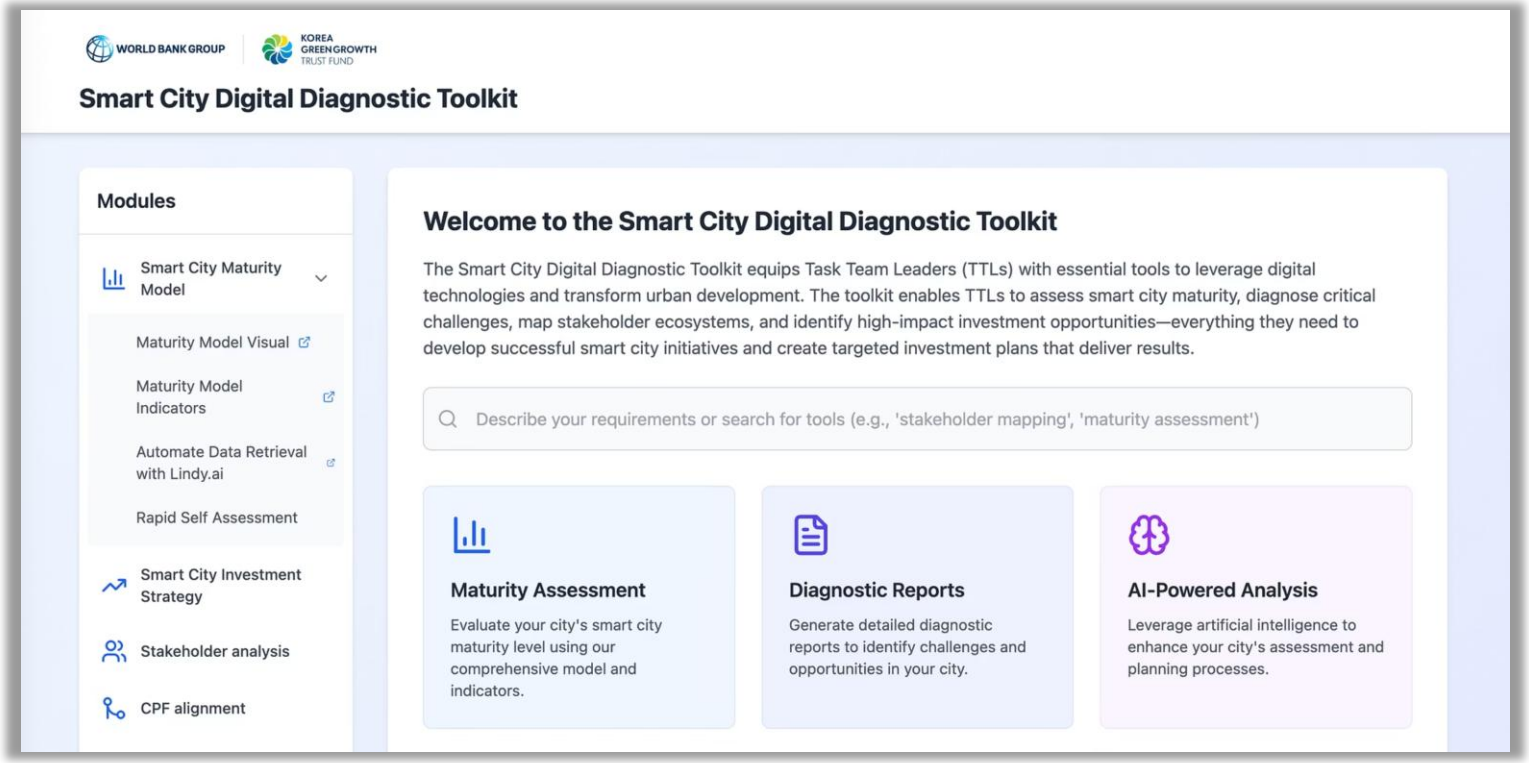

- Produces a stakeholder mapping report to identify tools to identify key actors across public, private, and civil society domains.
- Produces a report of investment landscape of the city.
- Includes a Field questionnaire for validation.
- Includes a Gen AI- Prompt Library
- GSCP team partnered with ITS and included spatial intelligence resources.

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Results and What's next?

- 📈 This is work in progress- Results are still emerging
- 🌍 We started to test the toolkit in Johannesburg, South Africa.
- **Key Findings:**

  - **Digital Transformation** emerges as the highest-scoring domain (1.63), primarily driven by connectivity infrastructure
  - **People and Digital Skills** represents the lowest-scoring domain (1.30), indicating significant capacity gaps
  - 69% of all indicators scored at the lowest maturity level (1)
  - No indicators achieved the highest maturity level (5)
  - **Connectivity** within Digital Transformation is the strongest category (3.00), suggesting that foundational ICT infrastructure exists
  - Five categories scored at the minimum maturity level (1.00), including Security & Privacy, Urban Platforms, Digital Capabilities, Innovation Skills, and Water Resource Management