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SMART CITIES • SUSTAINABILITY • DATA • GOVERNANCE

Agenda 2030
Smart Cities Blueprint

A practical 2026 guide to SDG 11, people-centred digital transformation, smart sustainable city KPIs and implementation pathways.

Prepared as an original CitiesABC-style research resource based on the 2019 paper by Jankal & Jankalová, updated with 2024-2026 UN,

Important: the UN 2030 Agenda defines goals, targets and indicators; it does not publish a single official ranked “Agenda 2030 Smart Cities List.”

RESEARCH NOTE

How to read this guide

This document is a substantially restructured and updated adaptation of the 2019 academic paper 2030 Agenda and Sustainable Smart City. The original paper established a strong connection between sustainable development, SDG 11, digital technologies and the practical experience of Slovak cities. This edition preserves that core idea but shifts the document from an academic country case into a more practical, global blueprint for city leaders, planners and researchers.

A terminology correction matters. "Agenda 2030 Smart Cities List PDF" is a common search phrase, but the United Nations does not maintain one official ranked list of Agenda 2030 smart cities. The UN framework defines goals, targets and indicators. City benchmarking is instead carried out through frameworks and indexes such as the ITU-led U4SSC KPIs, national programmes, independent smart-city indexes and local reporting.

1.16B
people lived in slums or informal settlements in 2024 (UN SDG 11, 2026)

61.5%
urban residents had convenient public transport access in 2025 (UN SDG 11,

250+
cities have implemented U4SSC KPIs (ITU/U4SSC)

What changed from the 2019 source

- From technology-first to people-centred. Current UN-Habitat work stresses inclusion, human rights, participation and equitable access alongside technology.
- From descriptive to measurable. U4SSC provides a standardised KPI route for assessing smartness, sustainability and progress toward the SDGs.
- From pilot projects to system transformation. Contemporary programmes such as the EU Cities Mission combine climate targets, governance, investment and citizen co-creation.
- From "smart" as an endpoint to continuous governance. Cybersecurity, data rights, digital inclusion, AI accountability and procurement resilience now belong in the core model.

01 • FOUNDATION

Agenda 2030: why cities are central

The 2030 Agenda for Sustainable Development, adopted in 2015, set 17 Sustainable Development Goals. For cities, SDG 11 is the central urban goal: make cities and human settlements inclusive, safe, resilient and sustainable. But smart-city policy also intersects with clean energy, water and sanitation, climate action, decent work, responsible consumption, health, education and institutions.

The original 2019 paper correctly treated smart-city development as a sustainability challenge rather than a technology project. It also emphasised that city progress depends on long-term planning and on the ability to collect, share and analyse information about mobility, energy, waste, public services and other urban systems. That logic remains valid; today, it is strengthened by explicit expectations around participation, digital rights and resilience.

SDG 11 area	What a city should translate it into	Example evidence
Housing & basic services	Affordable housing, secure tenure, serviced neighbourhoods	Share of residents in inadequate housing or informal settlements
Accessible mobility	Safe public transport, walking, cycling, universal access	Convenient access to public transport
Participatory planning	Transparent planning, resident participation, integrated land use	Regular civil-society participation structures
Resilience	Disaster-risk planning, resilient infrastructure and services	Local DRR strategies and service continuity
Environmental impact	Air quality, waste systems, resource efficiency and compact growth	PM2.5, controlled waste management, land-use efficiency
Public space	Safe, inclusive and accessible green/public spaces	Access to public open space within walking distance

Urbanisation makes this urgent

UN urbanisation projections show that the global urban share is on a long-term rise, with roughly 68% of the world population projected to live in urban areas by 2050. The 2026 SDG 11 update also shows that urban service access and housing pressure remain major constraints, so a “smart city” strategy that ignores housing, mobility and public space can be technologically impressive while still failing the Agenda 2030 test.

02 • DEFINITION

What makes a city smart and sustainable?

A useful modern definition is outcome-based: a smart sustainable city uses data, digital infrastructure and innovation to improve quality of life, inclusion, resilience and environmental performance. Technology is an enabler, not the goal. A city is not “smart” because it installs sensors; it becomes smarter when those systems help people receive better services, reduce resource use, make safer decisions and participate more effectively in public life.

1. People & inclusion

Digital access, accessibility, affordability, public value and skills.

2. Governance & trust

Participation, transparency, accountability, procurement and cross-agency coordination.

3. Data & digital infrastructure

Reliable connectivity, interoperable data, digital identity, platforms and secure architecture.

4. Climate & resources

Energy efficiency, decarbonisation, waste, water, air quality and nature-based resilience.

5. Mobility & built environment

Public transport, walking/cycling, logistics, buildings, districts and integrated land use.

6. Economy & innovation

Skills, entrepreneurship, R&D;, open ecosystems and investment models that create shared value.

The 2019 lesson that still holds

The source paper argued that smart-city development has to raise living standards and connect technology with long-term sustainability. It highlighted mobility, energy, waste management, telecommunications, health, social services, education, culture, community development, climate mitigation and public security as linked areas. The biggest update for 2026 is to treat rights, inclusion, cybersecurity, data governance and citizen participation as equally fundamental system requirements.

03 • BLUEPRINT

A Smart Cities Blueprint for Agenda 2030

CitiesABC's Blueprint for Smart Cities: A Social Contract adds a human-centred layer to the Agenda 2030 discussion. Rather than defining a smart city only through infrastructure or technology, the blueprint focuses on the relationships among citizens, government, business, universities and the wider environment. This is useful because SDG outcomes are rarely produced by one municipal department or one technology supplier.

> *The practical idea is simple: city transformation needs a social contract. Data, digital identity and governance systems should be designed around public outcomes; the people affected by decisions should have meaningful ways to participate; and institutional, business and academic actors should be able to share knowledge and responsibilities without losing accountability.*

01	**Define public outcomes** Start with housing, mobility, climate, safety, access and quality-of-life outcomes - not a technology shopping list.
02	**Map stakeholders & rights** Identify who benefits, who bears risk, who owns data, and who must be represented in decisions.
03	**Build interoperable foundations** Create secure connectivity, data governance, identity, APIs and architecture that can scale across services.
04	**Pilot with measurable KPIs** Run bounded pilots with baseline data, target indicators, citizen feedback and independent evaluation.
05	**Scale through governance & finance** Use procurement, standards, capacity-building and financing mechanisms to move from pilots to citywide systems.
06	**Review continuously** Track outcomes, publish progress, identify unintended impacts and update systems as technologies and needs change.

04 • MEASUREMENT

From aspirations to measurable city performance

One of the strongest improvements available since the 2019 paper is the maturity of measurement frameworks. The ITU-led United for Smart Sustainable Cities (U4SSC) initiative provides a standardised way for cities to assess digital transformation and sustainability in alignment with the SDGs. The current U4SSC programme reports implementation by more than 250 cities.

A practical city dashboard should combine three layers

Layer	Purpose	Examples
SDG outcomes	Keep transformation tied to public goals	Housing, transit access, air quality, waste, public space, resilience
Smart-city operating KPIs	Measure digital and infrastructure capability	Connectivity, service availability, data quality, response time, platform interoperability
Trust & inclusion indicators	Measure whether transformation is fair and legitimate	Accessibility, participation, digital inclusion, privacy incidents, cyber resilience, complaint resolution

A 2026 reality check

- Housing: UN SDG 11 reporting estimates 1.16 billion people lived in slums or informal settlements in 2024.
- Public transport: convenient access increased to about 61.5% of urban residents in 2025, but major regional gaps remain.
- Public space: only about 17% of urban land in the latest UN reporting sample was allocated to streets and public open spaces, below recommended ranges.
- Planning: data quality and public participation remain as important as sensor deployment; without them, technology can optimise the wrong objective.

05 • EXAMPLES

Illustrative smart-city pathways - not an official UN list

Cities pursue smart and sustainable outcomes through different institutional models. The examples below are included as practical references, not as a ranking and not as an official Agenda 2030 list.

City	Current emphasis	Why it matters for a 2030 blueprint
Singapore	Smart Nation 2.0: Trust, Growth and Community	Shows a shift from technology deployment toward explicit social outcomes, trust and citizen benefit.
Dubai	Digital city, data, cybersecurity, digital economy, talent and infrastructure	Illustrates integrated city-level digital governance and service transformation across multiple pillars.
Barcelona	Technological humanism, digital rights and responsible data governance	Highlights that smart-city strategies need rights, fairness and accountable data use - not only efficiency.
Helsinki	Proactive digital services, data and AI capability	Demonstrates how data can support anticipatory public services while keeping resident needs central.
Valencia	U4SSC KPI participation and climate-neutral city transformation	Shows the value of standardised measurement and cross-sector climate/digital transformation.

European mission model

The EU Mission for Climate-Neutral and Smart Cities supports 112 cities working toward climate neutrality by 2030, including 100 EU cities and 12 from associated countries. Its value as a blueprint is the systemic model: city authorities, citizens, businesses, investors and multiple levels of government are expected to work together, with cities acting as experimentation and innovation hubs for wider replication.

06 • CASE NOTE

Slovakia: what the 2019 case study still teaches

The original Jankal & Jankalová paper was not a global city list. It was primarily a Slovak case study showing how Agenda 2030, national priorities, European smart-city planning frameworks and local initiatives could reinforce one another. That institutional lesson remains useful.

In the 2019 paper, Slovakia’s Agenda 2030 implementation was organised around six national priorities, including education, knowledge-based and environmentally sustainable economic transformation, social inclusion, sustainable settlements in the face of climate change, rule of law and good health. SDG 11 was connected most directly with the priority on sustainable settlements, regions and countryside.

The paper also highlighted the former European Innovation Partnership on Smart Cities and Communities framework, built around three vertical themes - sustainable urban mobility, sustainable districts and the built environment, and integrated infrastructure across energy, ICT and transport - supported by horizontal enablers such as citizen focus, policy, planning, knowledge sharing, metrics, open data, standards and financing.

What to retain; what to update

- Retain: integrated mobility, buildings, energy and digital infrastructure; multi-stakeholder collaboration; measurement; financing; knowledge sharing.
- Update: treat older pilot programmes and organisations as historical context rather than current universal models.
- Add: people-centred design, AI governance, cybersecurity, privacy, digital inclusion, climate adaptation and modern KPI systems.
- Generalise: the Slovakia case demonstrates a reusable principle - align local projects with national strategy, finance and measurable outcomes.

07 • IMPLEMENTATION

A practical roadmap to 2030

Horizon	Workstream	What good looks like
0-90 days	Baseline & mandate	Define priority outcomes, governance owners, data inventory, legal constraints and baseline indicators.
3-6 months	Portfolio design	Select a small number of cross-sector use cases; publish target outcomes and citizen safeguards.
6-18 months	Pilot & verify	Run pilots, collect baseline/after data, test interoperability, cybersecurity and accessibility, and publish lessons.
18-36 months	Scale systems	Move successful pilots into reusable city platforms, standards, procurement frameworks and long-term operations.
To 2030	Institutionalise & improve	Tie budgets and contracts to outcomes, report KPIs annually, refresh risk controls and keep resident participation continuous.

Five questions before approving any “smart city” project

- Which SDG-linked public outcome will improve, and what is the baseline?
- Which residents could be excluded, surveilled, displaced or burdened by the solution?
- Who owns and governs the data, models, identity systems and infrastructure?
- Can the city switch vendors, export data and operate the service if a supplier fails?
- How will success be independently measured and publicly reported after deployment?

08 • SAFEGUARDS

Risks that belong inside the blueprint

Risk	Why it matters	Minimum safeguard
Digital divide	Digital-first services can exclude residents without access, devices or skills.	Multi-channel services, accessibility standards, assisted access, inclusion metrics.
Privacy & surveillance	Sensors, identity and analytics can create disproportionate monitoring.	Data minimisation, clear legal basis, purpose limits, retention rules and oversight.
Cybersecurity	Connected infrastructure expands the attack surface of essential services.	Security-by-design, segmentation, incident response, supplier assurance and resilience testing.
AI bias & opacity	Automated decisions can reinforce inequality or make accountability difficult.	Human oversight, impact assessment, explainability where appropriate, monitoring and appeal routes.
Vendor lock-in	Closed platforms can create long-term cost and interoperability problems.	Open standards, data portability, modular procurement and exit clauses.
Pilot theatre	Cities can accumulate demos without systemic improvement.	Outcome gates, total-cost-of-ownership tests and clear scale/stop decisions.

The people-centred test

UN-Habitat’s recent people-centred smart-city work is a useful benchmark: technology should improve quality of life and social, economic and environmental sustainability while remaining participatory and equitable. In practice, that means a project should be considered incomplete if it is technically functional but inaccessible, unaccountable or harmful to vulnerable groups.

09 • CHECKLIST

Smart City 2030 readiness checklist

☐	**Strategy**	Our city has a small number of clearly prioritised SDG-linked urban outcomes.
☐	**Baseline**	We have current, auditable baseline data for each outcome.
☐	**Governance**	Accountability is assigned across departments and external partners.
☐	**Participation**	Residents and affected communities have meaningful participation channels.
☐	**Digital inclusion**	Services remain accessible to people with disabilities, low connectivity or limited digital skills.
☐	**Data**	Data ownership, quality, sharing, privacy and retention rules are documented.
☐	**Cybersecurity**	Essential services and suppliers are covered by security and continuity requirements.
☐	**Architecture**	Platforms use interoperable standards and avoid unnecessary vendor lock-in.
☐	**Climate**	Technology investments support energy, mobility, resilience and resource-efficiency goals.
☐	**Measurement**	KPIs connect operational performance to public outcomes and SDGs.
☐	**Finance**	Pilots include lifecycle cost, maintenance and scale-up funding.
☐	**Transparency**	Progress, failures, trade-offs and corrective actions can be reported publicly.

10 • SOURCES

Selected sources and further reading

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Editorial note

This document is an original synthesis prepared for web publication and download. It retains the core subject matter of the uploaded 2019 paper while changing the structure, wording, scope and design, and adds newer research and policy frameworks. City examples are illustrative rather than an official ranking or certification.

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