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**Overview of the work developed by the United Nations
Innovation Technology Accelerator for Cities (UNITAC-
Hamburg), including thematic priorities (2026-2028) and
engagement opportunities**

UNITAC-Hamburg: People-centred digital innovation for sustainable urbanization

1) Overview of UNITAC: Establishment, partnerships, mandate and operational approach

1. The **United Nations Innovation Technology Accelerator for Cities (UNITAC Hamburg)** was established in Hamburg, Germany, in 2020 as a partnership between UN-Habitat, the United Nations Office of Information and Communications Technology (OICT), and HafenCity University Hamburg (HCU), with support from the Government of Germany. As UN-Habitat's dedicated digital innovation facility, UNITAC supports the delivery of UN-Habitat's Strategic Plan 2026-2029 by placing housing at the center of its work, including informal settlement transformation, land for housing, and urban governance, and advancing the means of implementation across knowledge, data, digitalization and capacity development, and by helping Member States accelerate progress toward the Plan's three impact areas: equitable and inclusive prosperity; preparedness, response, recovery and reconstruction; and environment and climate action.
2. A central dimension of UNITAC's work lies in **strengthening urban data systems and advancing digitalization for evidence-based decision-making**. UNITAC collaborates closely with UN-Habitat's Data and Statistics Team to translate emerging digital technologies into scalable methodologies for urban data production, integration and use. This collaboration reinforces UN-Habitat's custodianship of Sustainable Development Goal (SDG) 11 and its leadership in global urban monitoring frameworks, including the Global Urban Monitoring Framework (GUMF) and the Degree of Urbanization methodology, as well as contributions to the Global Urban Data Coalition, a UN-Habitat flagship initiative supporting the 2030 Agenda and the ongoing review of SDG 11. Through support to national statistical offices, local governments and urban observatories, UNITAC contributes to spatially disaggregated, timely and policy-relevant evidence on housing, informal settlements, urban resilience and quality of life, among other datasets, with emphasis on SDG 11.1, informal settlements, land mapping for housing, and governance. These efforts underpin institutional reforms in countries where geospatial and data-driven approaches are being integrated into planning and service-delivery systems, while supporting the implementation of the New Urban Agenda and advancing global commitments, including the Global Digital Compact and the Pact for the Future, informing the mid-term review of the New Urban Agenda and highlighting the role of digital technologies and data in shaping its next decade of implementation. Detailed priorities for the upcoming period, including the thematic areas, are presented in section 3 below.
3. **The partnership structure is central to UNITAC's value proposition**. The tripartite model – UN-Habitat (mandate and global network), OICT (system-wide digital innovation and security) and HCU (urban science and academic ecosystem) – anchors UNITAC firmly within the UN development system, among its Member States, and the global applied research communities. This model enables rigorous tool design and field testing with local

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institutions, while UNITAC's multidisciplinary team, spanning data science, digital governance, geospatial analysis, urban planning and capacity development, supports partners across the full innovation cycle, from problem diagnosis and co-design to tool development and institutionalization.

4. As UN-Habitat's digital facility, **UNITAC works through regional and country offices** to ensure innovation responds to locally identified needs. Engagements have included scaling AI-assisted informal settlement mapping across eight Central American capitals (*Belize City, Guatemala City, San Salvador, Tegucigalpa, Managua, San José, Panama City, Santo Domingo*); digital capacity-building for governors, mayors or senior officials in Brazil, Egypt, and Kenya; national-level participatory planning in Brazil; and an inclusive innovation competition for climate-smart urban development in Bangladesh. Through such collaborations, UNITAC operates as an integral part of UN-Habitat's global programme delivery, complementing normative work with applied innovation and supporting operational activities across regional and country portfolios.
5. UNITAC's operational approach is structured around three interlinked pillars: **Strategy, digital tools, and capacity development**, supported by a framework¹ combining open calls for projects with a four-phase development model (discovery, design, pilot, scale). Strategic outputs include *UN-Habitat's Step-by-Step Guide for a People-Centred Smart City Strategy*, the *GeoAI Toolkit for Urban Planners*, and training packages on digital transformation for city leaders in several regions, with a smart city strategy for Windhoek (Namibia) forthcoming. The digital tools pillar covers mapping and AI, participatory platforms, analytics and service delivery solutions, and includes solutions such as the *Building and Establishment Automated Mapper (BEAM)*, *AOVI*, *GioMap*, *DIPAS* upscaling, the *Dhaamiye* digital water platform, the *Urban Recovery Planning System (URPS)* and the *City Resilience Tool*. The capacity development pillar provides structured training and knowledge exchange for technical teams and city leaders, reaching approximately 5,000 participants worldwide to date. Together, these pillars ensure that UNITAC moves from concept to scalable implementation in a manner that is needs-driven, inclusive, ethically grounded, and designed for long-term use by public institutions.
6. **UNITAC's work aligns closely with wider UN system priorities**, including the Global Digital Compact (GDC), the UN 2.0 agenda on data and innovation, and the UN80 Action Plan system enablers. By strengthening digital and data capabilities within public institutions, UNITAC supports a more effective and forward-looking UN development system and advances the testing and scaling of digital innovation through UN-Habitat's global networks and programme delivery. This mandate is reinforced through formal cooperation frameworks such as the Memorandum of Understanding (MoU) with the International Telecommunication Union (ITU) on people-centred smart cities, digital connectivity and urban data, and collaboration under the United for Smart Sustainable Cities (U4SSC) initiative. Complementary cooperation with the United Nations Institute for Training and Research (UNITAR) enables joint work with UNOSAT on geospatial analytics, capacity development and data-driven digital technologies for sustainable urban development. UNITAC also contributes to system-wide dialogues through platforms such as the Global Urban Data Coalition and AI for Good, promoting responsible and inclusive digital innovation.
7. Building on this institutional and operational platform, the next section summarizes the principal tools and partnerships through which UNITAC has generated results in planning, participation, service delivery and recovery. Further information on how Member States may engage with UNITAC, including opportunities for technical cooperation, pilots and capacity development, is provided in section 4 below.

2) Key tools, solutions and partnerships: From pilots to institutionalization

8. Through the development and deployment of innovative digital tools, geospatial analytics methodologies and participatory data approaches, UNITAC has strengthened the ability of cities and national institutions to generate reliable evidence on **adequate housing, informal settlements and basic services**. Its work on AI-assisted mapping, including BEAM, has enabled municipalities such as eThekweni to map entire urban areas within days rather than months², supported through local hosting, documentation and capacity building to ensure ownership and ethical oversight. The approach was extended to Cape Town, where more than 822,000 additional structures, including backyard dwellings, were integrated into municipal datasets. In Central America, BEAM deployments across eight capital cities, complemented by participatory mapping using the open-source *GioMap* application, produced harmonized building-footprint datasets. In Namibia, UNITAC applied BEAM across seven towns using high-resolution imagery to support climate-sensitive upgrading efforts. This body of work contributes to UN-Habitat's custodianship of SDG 11 and its leadership in global urban monitoring frameworks, including the GUMF and the Degree of Urbanization. By supporting national statistical offices, local governments and urban observatories to adopt advanced data-production methods, UNITAC enhances institutional capacity to generate spatially disaggregated, timely and policy-relevant urban statistics, which improves the evidence base required for equitable planning and meeting SDG 11.1 targets on adequate and inclusive housing and contributes to the Open-

¹ The innovation acceleration methodology was presented to Member States in the 'People-Centred Smart Cities: Innovation Methodology' technical note (UN-Habitat, 2024).

² An exercise that would otherwise require eThekweni almost a full year of manual work now took only 72 hours.

- ended Working Group on Adequate Housing for All (OEWG-H) including its work on definitions, measurement and policy approaches related to informal settlements and housing adequacy.
9. Building on progress in AI-assisted mapping, UNITAC has combined spatial analysis with participatory data collection to **support more inclusive and climate-sensitive upgrading strategies**. As part of the “*Just transitions in vulnerable places – digital solutions for more climate resilient informal areas and climate smart urban recovery of communities affected by crisis*” project, supported by the German Federal Ministry of Economic Cooperation and Development (BMZ), UNITAC is working with national and local partners to advance high-resolution data collection and settlement profiling. As part of this work, UNITAC collaborates with the Namibia Statistics Agency and the Ministry of Urban and Rural Development to strengthen the National Housing Information System, enhance high-resolution urban data systems and support the implementation of the National Housing Policy. This includes improving digital capacities at national and local levels, supporting the work on informal settlements and providing targeted capacity building. Digital service management tools such as the *Digital Job Card* have been introduced in five Namibian municipalities to transition from paper-based workflows to reliable digital systems for infrastructure maintenance, helping reduce delays, improve data accuracy and make better use of limited resources. The ongoing development of Windhoek’s People-Centred Smart City Strategy reinforces this shift toward data-driven urban management, improved service delivery and urban resilience, and integrated technology across municipal functions.
 10. UNITAC has advanced the development of digital tools that support evidence-based recovery, reconstruction and resilience planning in **crisis, conflict-affected and post-crisis settings**. Building on its engagement in Ukraine, and in close collaboration with UN-Habitat’s Ukraine office and Urban Lab, partner hromadas and the Ministry for Communities and Territories Development, UNITAC designed the *Urban Recovery Planning System (URPS)*, including a modular geospatial platform that integrates sectoral data, visualizes damages, assesses service reachability and simulates recovery scenarios. URPS complements existing planning systems and provides national and local authorities with a structured means to coordinate reconstruction, monitor evolving conditions and incorporate community-driven feedback into recovery processes. Its modular architecture allows adaptation to diverse crisis contexts and supports both immediate response and longer-term reconstruction planning. URPS enhances governments’ ability to navigate recovery conditions marked by uncertainty, data scarcity and spatial complexity, and supports equitable, crisis-responsive and forward-looking reconstruction.
 11. UNITAC has also supported **inclusive decision-making and service delivery through digital platforms** adapted to local contexts. The *AOVI platform* enabled real-time participation in the “*Brazil Strategy 2050*” consultations, engaging more than 3,000 participants and building capacity through co-design with the Ministry of Planning and Budget. The tool was subsequently adapted for Bangladesh’s *INCLUDE* innovation project, facilitating a participatory, inclusive innovation competition to identify practical solutions for municipalities to address the impacts of climate change in Chapainawabganj, Charghat, Gaibandha, and Sirajganj. Additionally, GioMap, a web-based open-source application to visualize and collect geospatial data, facilitated collaborative, multi-user geospatial data creation in Central America, and *DIPAS (Digital Participation System)* was upscaled in Botswana to gather spatially anchored feedback during the Segoditshane River Corridor planning process. In Hargeisa, the *Dhaamiye digital water platform*, co-designed with the Somali Water Agency, has improved service access for vulnerable communities, particularly women who walk long distances to fetch water from water kiosks, connecting households with certified vendors. The system includes vendor verification, user feedback and real-time service monitoring.
 12. **Summary of results from the first programme cycle:** Evidence from 2020-2025 shows improved institutional knowledge and understanding of digital innovation (Indicator 1), increased usage of people-centred digital technologies in real planning and service-delivery workflows (Indicator 2), and strengthened local government capacity through training and targeted technical assistance (Indicator 3). Strategic partnerships across governments, UN entities, academia and civil society have underpinned scale-up and learning. These results inform the priorities for the next phase.
 13. Drawing on these implementation experiences and institutional lessons, section 3 sets out the thematic areas and strategic focus for 2026-2028.

3) People-centred smart cities: Prospects and pathways

14. The application of digital technologies through UNITAC will remain central to the implementation of UN-Habitat’s Strategic Plan 2026-2029, the continued operationalization of the New Urban Agenda, and the acceleration of SDG 11. The Strategic Plan identifies knowledge, data and digitalization as core means of implementation, underscoring the role of digital tools in enabling evidence-based decision-making, strengthening urban governance, and scaling integrated approaches to housing and basic services. UNITAC’s work therefore advances people-centred, context-specific digital solutions that enhance the capacity of national and local governments to address increasingly complex urban challenges in line with the Pact for the Future and the review of the New Urban Agenda, emphasizing the role of digital technologies and data in implementation.
15. Across the United Nations system, digital technologies are recognized as key enablers for delivering the 2030

Agenda and related global frameworks. The Global Digital Compact, together with system-wide work led by ODET, stresses the importance of inclusive digital transformation, strengthened data governance, and responsible use of emerging technologies. These frameworks call for innovation that bridges digital divides while contributing to more coordinated and future-oriented development pathways.

16. Demand for collaboration with UNITAC continues to grow, particularly in areas such as people-centred smart city strategies, strengthening urban data systems and digital governance, geospatial and digital tools for informal settlement mapping and upgrading, and the application of emerging technologies, including artificial intelligence, for planning and service delivery. Member States are also requesting increased support in capacity development, policy guidance, and participation in global platforms related to digital urban transformation.

4) Priority thematic areas and strategic focus (2026-2028)

17. UNITAC's vision is to serve as a global accelerator for people-centred digital transformation, enabling Member States to leverage AI, geospatial systems, participatory platforms and robust data governance frameworks to advance sustainable, inclusive and climate-resilient housing and urban development. Over the **2026-2028 programme cycle**, UNITAC will consolidate and extend its contribution to people-centred digital transformation through three priority thematic areas that reflect the evolution of its technical portfolio and the direction of its second programme phase, supported by the German BMZ. These areas, namely mapping and spatial data analytics, data-enabled urban resilience and recovery, and open and participatory data governance, form the backbone of UNITAC's operational plan and will guide scale-up across diverse urban contexts with housing centrality, including informal settlements, land availability, and governance systems. Each area builds on evidence generated during the first programme phase and responds to growing demand arising from rapid urbanization and housing shortages, expanding informal settlements, crisis and climate stresses, and governance capacity gaps.
18. **In the area of mapping and spatial data analytics for urban development**, achieving SDG 11.1 on "adequate, safe and affordable housing and basic services and upgrade slums" requires efficient and robust tools for mapping, targeting, and monitoring. UNITAC's tools, include BEAM, which uses machine learning to map rooftops in informal settlements, help close visibility gaps and improve service provision for underserved communities. Having been applied in nine countries and ten cities, including in South Africa, Central America, and Namibia, BEAM and related AI tools will continue to be scaled and refined. UNITAC will test new approaches, develop digital tools, and issue guidance to support urban managers in applying mapping, spatial analytics, and visualization tools to improve planning and monitoring and data.
19. **Concerning data-enabled urban resilience and recovery**, UNITAC will continue leveraging data, spatial analysis, and digital tools to build urban resilience, particularly in crisis-affected regions. Building on experience from the URPS developed under the Ukraine project, UNITAC will expand its spatial decision-support system designed for recovery planning and reconstruction. The geospatial platform enables visualization and analysis of sectoral data, agile mapping of damages, reachability analysis, simulation of facility scenarios and community input into recovery planning. This work supports evidence-based recovery and climate-responsive reconstruction, and helps authorities visualize needs, coordinate interventions and allocate resources with greater precision. UNITAC will also deepen its data-driven approaches for climate-resilient upgrading in vulnerable contexts, including in Namibia where geospatial and participatory data are used to map climate risks and service gaps in informal settlements.
20. **Under the priority area of open and participatory data governance**, UNITAC will advance people-centred smart city governance by expanding participatory platforms such as AОВI and DIPAS upscaling, transparent service tools including the Digital Job Card, and Dhaamiye, and innovative methods that blend digital and in-person engagement. This work continues to promote co-creation, citizen participation and feedback at local and national levels. Partnerships with national and regional governments will support the integration of rights, inclusion and ethical AI into cities' digital transformation efforts. This work equips governments with institutional capacities and policy frameworks needed to guide digitalization toward trusted, rights-respecting public services, while delivering tangible public benefit.
21. To operationalize these priorities, UNITAC will deliver pilots, knowledge products, tools and training designed to **consolidate learning and accelerate adoption**. Working closely with **UN-Habitat's regional offices and country initiatives**, UNITAC will scale its work in response to Member States' demand. Over the coming period, UNITAC will diversify and expand its partnership base, engaging with national statistical offices, utilities, subnational governments, academia and digital rights networks to broaden the application of people-centred digital solutions. The engagement modalities below outline how Member States can collaborate with UNITAC.

5) Engagement opportunities with UNITAC: Collaboration modalities and benefits for Member States

22. Member States are encouraged to engage with UNITAC through **government-led pilots co-designed and implemented with UN-Habitat regional and country offices** to ensure alignment with national priorities. Member States may propose demand-driven pilots through **UNITAC periodic open calls for projects** aimed at

surfacing locally defined challenges with co-created prototypes and digital solutions through which cities gain direct structured advisory support, access to a global peer network, and visibility in UN-Habitat fora such as the World Urban Forum and the Hamburg Sustainability Conference; or through **direct dedicated project funding** by countries, particularly where data gaps impede effective planning, participation or recovery. **Resource mobilization** may be structured through bilateral or multi-donor contributions for tool development, deployments or capacity building; co-financed technical cooperation with line ministries or utilities; thematic windows (e.g. AI for SDG 11.1 or urban recovery) for multi-country implementation or replication; and in-kind contributions such as imagery, datasets, hosting or software developer time. Overall, Member States benefit from UNITAC's co-design and rapid-prototyping workflow, with proposals assessed for feasibility, institutional readiness, public value and potential for scale.

23. UNITAC also offers modular **capacity development activities** for municipal technical teams, national officials and city leaders, from executive briefings on people-centred smart cities to technical clinics on AI-assisted mapping, participatory tools and digital governance. Building on the pilots described in section 2 and the priorities outlined in section 3, UNITAC supports governments with practical methodological resources, including the *Step-by-Step Guide for a People-Centred Smart City Strategy*, used to shape Windhoek's Smart City Strategy, and the *GeoAI Toolkit for Urban Planners*. Additional tools and guidance will be developed as pilots mature.
24. Member States partnering with UNITAC can expect **improved evidence for decision-making through spatial analytics**; more inclusive and legitimate planning processes through digital participation; enhanced service delivery and user-centred applications; and strengthened institutional capacity through documentation, handovers and training. Engagement with UNITAC supports both the adoption of innovative tools and the long-term institutionalization of ethical, rights-based digital governance. Countries may also draw on UNITAC's experience in developing toolkits, frameworks and step-by-step guidance for people-centred smart cities and digital rights, ensuring that new investments align with sustainability principles, human rights, equity, gender responsiveness, and ethical AI.