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Indonesia's Smart City Strategy and the New Capital Nusantara

Sungchan Park

ABSTRACT

Indonesia's ambitious capital relocation project – building a new city called Nusantara in East Kalimantan – is framed as a model smart city integrating cutting-edge technology with sustainable urban development. This issue paper examines Nusantara's smart city strategy and what sets it apart. The Indonesian government envisions Nusantara as a “green, walkable” metropolis powered by renewable energy, with up to 75% of its area maintained as forest land. Digital infrastructure and e-governance are foundational pillars, aligning with national goals to become a leading digital economy by 2045. We analyze the government's policy direction, which emphasizes inclusive innovation from developing local digital talent to digitizing small businesses and strong commitments to sustainability and climate resilience. The paper also outlines Nusantara's institutional setup and financing: a dedicated capital authority (OIKN) oversees development, and Indonesia is leveraging public-private partnerships, a new sovereign wealth fund, and international collaborations to fund roughly 80% of the estimated US\$32–33 billion project. Key stakeholders include national ministries, the Nusantara Authority, local communities, and foreign partners in both government and industry. Crucially, we identify opportunities for Korean companies in Nusantara's build-out. South Korea is already a strategic partner, sharing its experience from Songdo and Sejong smart cities. Areas such as digital networks and data centers, smart mobility and electric vehicles, renewable energy and smart grids, e-government platforms, AI-powered city services, and advanced construction technologies stand out for potential Korean participation. Concrete examples from an MoU between Telkom Indonesia and KT for ICT infrastructure to LG's role in designing smart city systems illustrate how Korean expertise is being tapped. By surveying Nusantara's planning and early implementation progress, this paper provides practical insights for industry professionals on how Indonesia is operationalizing its smart city vision and how international players, especially from Korea, can engage in this landmark project. The findings underline Nusantara's significance as a testbed for urban innovation and a focal point for collaboration in sustainable city-building.

인도네시아의 야심찬 수도 이전 프로젝트 – 동 칼리만탄에 새로운 도시인 누산타라를 건설하는 것 –은 최첨단 기술과 지속 가능한 도시 개발을 통합한 모델 스마트 시티로 제시되고 있다. 이 이슈 페이퍼는 누산타라의 스마트 시티 전략과 그 차별점을 분석한다. 인도네시아 정부는 누산타라를 재생 에너지로 구동되는 ‘녹색, 보행 친화적’ 메트로폴리스로 구상하며, 그 면적의 최대 75%를 숲 지역으로 유지할 계획이다. 디지털 인프라와 전자정부는 국가 목표인 2045년까지 디지털 경제 선도국으로의 도약을 지원하는 핵심 기둥이다. 본 보고서는 정부의 정책 방향을 분석하며, 지역 디지털 인재 양성부터 소규모 기업 디지털화까지 포용적 혁신을 강조하고 지속 가능성과 기후 변화 대응에 대한 강력한 의지를 보여준다. 이 보고서는 누산타라의 기관 구조와 자금 조달 방안을 설명한다. 전용 자본 관리 기관(OIKN)이 개발을 감독하며, 인도네시아는 공공-민간 파트너십, 새로운 주권 부유 기금, 국제 협력을 통해 추정 비용 약 32~33억 달러 프로젝트의 약 80%를 자금 조달할 계획이다. 주요 이해관계자에는 국가 부처, 누산타라 당국, 지역 사회, 정부 및 산업 분야의 외국 파트너가 포함된다. 특히, 우리는 누산타라의 개발 과정에서 한국 기업들의 기회를 식별한다. 한국은 이미 전략적 파트너로, 송도와 세종 스마트 시티에서의 경험을 공유하고 있다. 디지털 네트워크와 데이터 센터, 스마트 모빌리티와 전기 차량, 재생 에너지와 스마트 그리드, 전자정부 플랫폼, AI 기반 도시 서비스, 고급 건설 기술 등은 한국 기업의 참여 가능성이 높은 분야이다. 텔콤 인도네시아와 KT 간의 ICT 인프라 관련 양해각서(MOU)부터 LG의 스마트 시티 시스템 설계 역할까지, 한국 전문성이 활용되는 구체적인 사례들이 있다. 누산타라의 계획과 초기 실행 진전을 조사함으로써, 이 보고서는 인도네시아가 스마트 시티 비전을 어떻게 구현하고 있는지, 특히 한국을 포함한 국제 플레이어들이 이 기념비적인 프로젝트에 어떻게 참여할 수 있는지 산업 전문가들에게 실용적인 통찰을 제공한다. 연구 결과는 누산타라가 도시 혁신의 테스트베드이자 지속 가능한 도시 건설 협력의 중심지로서의 중요성을 강조한다.

Indonesia is undertaking a historic urban development endeavor: relocating its national capital from Jakarta to a new planned city, Nusantara, on Borneo Island. Announced in 2019 by President Joko Widodo, the Nusantara project aims to address Jakarta's chronic challenges – overcrowding, congestion, flooding, pollution, and land subsidence – by creating a new seat of government designed for the 21st century. Beyond relieving Jakarta, Nusantara embodies a forward-looking vision for Indonesia's future. It is conceived not merely as an administrative hub, but as a “modern, sustainable, and resilient metropolis” showcasing Indonesia's commitment to smart city development and equitable growth.

Nusantara's development is guided by principles of technological innovation, environmental stewardship, and inclusivity. The city will integrate advanced infrastructure from the ground up – high-speed digital networks, intelligent transportation systems, smart utilities – while preserving the rich ecology of East Kalimantan. Planners pledge that renewable energy and green design will underpin the capital, with an aspirational target of net-zero emissions by 2045. Institutional arrangements have been put in place to realize this vision: Indonesia established the Nusantara Capital Authority (Otorita IKN) to oversee planning, construction, and governance of the new city, operating under special legislation (the IKN Law passed in 2022). The Authority coordinates across government agencies and works with private investors to execute the massive project. This introduction sets the stage for an in-depth look at Indonesia's smart city strategy in Nusantara. Subsequent sections detail the key features differentiating Nusantara's approach, the government's digital and sustainable development initiatives, the funding and governance model, and the roles of various stakeholders. In particular, we will highlight international cooperation – notably with South Korea – and identify sectors where Korean companies and others can contribute. By examining both policy blueprints and on-the-ground progress, the paper provides a comprehensive picture of how Nusantara is being built as a “global city for all” and what opportunities it presents for global partners.

A Model Smart City for Sustainability and Innovation: Nusantara is envisioned as a “smart, modern city” that meets international standards and exemplifies Indonesia’s development progress. In the official Nusantara Smart City Blueprint, the project is framed as a holistic smart city encompassing six strategic domains: Smart Governance, Smart Living, Smart Industry & Human Resources, Smart Built Environment & Infrastructure, Smart Natural Resources & Energy, and Smart Transportation & Mobility. This domain-based approach ensures that technology and innovation support every aspect of urban life. For example, Smart Governance will digitize public services and strengthen cybersecurity for government systems. Smart Living focuses on quality of life – from healthy air and water to accessible public spaces – aiming to make Nusantara a “livable and lovable city” for its residents. The inclusion of Smart Industry & Human Resources reflects a differentiator in Indonesia’s strategy: building local digital talent and businesses. One goal of Nusantara is to cultivate international-quality digital professionals and to nurture tech-driven entrepreneurship, thereby addressing Indonesia’s digital skills gap and making the city an engine for the national digital economy. In practice, this means establishing innovation hubs, coding academies, and partnerships with universities so that the new capital produces the skilled workforce needed for its high-tech ecosystem.

Digital Transformation and Community Empowerment: The development of Nusantara is a centerpiece of Indonesia’s broader digital transformation agenda. Officials describe the new capital as a digitalization catalyst that will strengthen Indonesia’s “power in the digital sector” on the path to 2045. Concretely, the smart city plan calls for ubiquitous high-speed connectivity (5G and fiber networks) and an integrated ICT infrastructure. A multi-utility tunnel (MUT) system is being built to house power lines, telecommunications cables, water pipes and more in an orderly, underground network. These tunnels, equipped with sensors linked to a central command center, allow for efficient monitoring and maintenance of utilities without disrupting the urban landscape. Nusantara’s command center will be the digital “brain” of the city – aggregating data from sensors and systems citywide to enable real-time management of traffic, security, utilities, and emergency response. In 2024, Indonesia partnered with the U.S. Trade and Development Agency on a pilot project to develop an integrated smart city command center, with contributions from U.S. tech firms like Cisco, AWS, IBM, and Honeywell. This facility is expected to enhance Nusantara’s operational capabilities through data-driven decision-making, improving public services and safety for residents.

Crucially, Indonesia’s smart city strategy emphasizes inclusion – ensuring that technology benefits small businesses and ordinary citizens, not just government or big industry. For instance, Nusantara plans to digitize micro, small and medium enterprises (MSMEs) through dedicated digital platforms. These platforms will help local entrepreneurs market their products online, access training and financing, and tap into Nusantara’s supply chains. Such support aligns with national trends where e-commerce and social media are empowering MSMEs across Indonesia. By embedding these

practices in Nusantara from the start, the city is meant to become a hub for digital entrepreneurship and innovation. The Nusantara blueprint also stresses citizen engagement: smart city systems are to be designed with user-friendly apps and open data to involve residents in urban management and civic life. This people-centric approach – “integrating technology in every aspect of the city to make life easier, safer, and more sustainable for citizens” – is intended to create not just a high-tech city, but a community where “happy” citizens feel ownership of their smart city.

Sustainable Urban Development Goals: What sets Nusantara apart is the degree to which sustainability is a core mandate. The new capital is frequently described by Indonesian leaders as an “inclusive, green, and sustainable city” and a showcase of Indonesia’s climate commitments. Environmental considerations have been built into Nusantara’s master plan. The city’s planners aim to preserve forests, protect biodiversity, and build in harmony with the natural landscape of Borneo. Indeed, project plans call for 75% of the city’s area to remain forested or green space, preserving mangroves and wildlife corridors. A Nusantara Biodiversity Master Plan has been drawn up to mitigate impacts on local ecosystems through conservation and restoration programs. Additionally, Nusantara has published a Net Zero Strategy 2045, detailing a roadmap for the city to achieve carbon neutrality by 2045 in sectors like energy, waste, and transportation. In practical terms, this means investments in renewable energy (such as solar farms and possibly hydro or wind) and a smart grid for the city. One early initiative is a planned 50 MW solar power plant via a public-private partnership, and more ambitiously, Indonesia’s government has discussed a 10 GW renewable energy project backed by the UAE to supply Nusantara and beyond. The city’s transport design also favors sustainability: public transit systems, electric vehicles, and pedestrian-friendly “10-minute city” concepts (where daily needs are within a short walk) are prioritized to minimize car dependency and emissions.

Nevertheless, balancing development with conservation poses challenges. Nusantara is being built on a site of secondary forest and former timber/plantation land about 30 km from the coast. Satellite images from 2022–2024 show large swathes of jungle cleared for roads and construction. Environmental groups have raised concerns about habitat loss (endangered species like proboscis monkeys and Irrawaddy dolphins live in the area) and the carbon footprint of construction. The government’s response has been to strengthen environmental oversight and emphasize that Nusantara’s long-term gains – a sustainable city that alleviates Jakarta’s environmental stress – will outweigh the short-term impacts if managed responsibly. As part of this, stakeholder engagement with local communities and adherence to environmental impact assessments are being undertaken to ensure the project’s legitimacy and mitigate social or ecological harm. In sum, Nusantara’s smart city concept is inseparable from its green city concept: technology will be used not only to create efficiency and economic growth, but also to monitor environmental quality, manage resources like water and energy wisely, and build climate resilience into Indonesia’s new capital.

Institutional Framework and Governance: The Nusantara Capital City Authority (OIKN) is the central institution driving the planning and implementation of the new capital. Established by law in early 2022, OIKN has broad authority to plan, develop, and later govern Nusantara, under direct mandate of the President. Initially headed by Bambang Susantono (a former vice minister of transport) and later by Minister Basuki Hadimuljono as acting chief, the Authority acts as a special local government for Nusantara. It coordinates multiple stakeholders: national ministries (Public Works & Housing, National Development Planning/Bappenas, Finance, etc.), provincial and regency governments in East Kalimantan, state-owned enterprises, and private investors. The OIKN also issues regulations specific to the capital city zone – for instance, land use and investment licensing in Nusantara are administered by the Authority to streamline procedures. Notably, to attract investment, the government has offered incentives such as long-term land use rights for private entities and tax breaks for businesses in Nusantara. President Jokowi and now President Prabowo have repeatedly reassured investors of policy continuity and ease of doing business in the new capital. A one-stop online portal called “Investara” has been launched to simplify investor inquiries and Letter-of-Intent submissions for Nusantara projects. This approach reflects a stakeholder structure where the government actively partners with the private sector and foreign allies, rather than funding the city alone.

Funding Model – Public, Private and International Collaboration: Financing Nusantara is a colossal undertaking, and Indonesia has adopted a multi-channel funding model. The overall project cost is estimated around US\$32–34 billion, and critically, only about 20% will come from Indonesia’s state budget, with the rest expected from private investment and public-private partnerships. In other words, Nusantara’s success hinges on mobilizing domestic and foreign investors for the bulk of its development. To facilitate this, several mechanisms are in place. First, specific projects in Nusantara are being packaged as PPPs (Public-Private Partnerships). By mid-2025, the OIKN had rolled out PPP tenders for infrastructure like housing, roads, and utilities. For example, the Authority secured around Rp 60.9 trillion (\approx US\$4 billion) in PPP commitments to build 97 apartment towers and 129 landed houses for civil servants and residents, plus multiple road segments and the multi-utility tunnels in the core government area. Another PPP project will deliver a solar power plant to contribute to the city’s renewable energy supply. These PPPs often involve consortia of Indonesian companies (e.g. state-owned builders like PT Pembangunan Perumahan) and foreign partners for technology or financing.

In addition to project-based PPPs, Indonesia has stood up a new sovereign wealth fund unit called Danantara to attract large-scale investment into Nusantara and other strategic projects. In February 2025, the UAE committed US\$10 billion to Danantara – in part earmarked for Nusantara’s green energy development, such as a joint venture to build 10 GW of renewable power capacity. This reflects the high-level international buy-in Indonesia is seeking; the UAE, known for its bold

city-building (e.g. Masdar City), is emerging as a major partner. There is also growing interest from other countries' funds and companies: for instance, as of 2023–24, Indonesia signed cooperation agreements with authorities in the United Arab Emirates (for Nusantara's financial district), and engaged Japan and China in infrastructure discussions, while friendly nations like Singapore and Korea have been invited to explore investment opportunities in the new capital. By May 2025, OIKN reported that a total of 42 companies had invested about Rp 62 trillion, with another 6 companies signing for Rp 3.65 trillion – collectively over US\$4 billion in private investment realized so far. These include commitments to build hotels (e.g. Marriott is planning a five-star hotel), education facilities (an international school for 750 students), retail centers, offices and apartments in Nusantara. Such early investments – predominantly by Indonesian conglomerates and some foreign partners – are establishing the basic urban amenities needed to attract residents and businesses to Nusantara in its formative years.

Phase-wise Development and Current Status: The implementation of Nusantara is phased over two decades. Phase 1 (2022–2024) focused on the Core Government Central Area (KIPP), aiming to have a functional seat of government by August 2024 (when Indonesia celebrated Independence Day). Construction officially broke ground in mid-2022, and by late 2023 significant progress had been made: roads and bridges connecting the site are in place, the presidential palace and several ministry buildings were under construction, and housing for the first batch of civil servants was nearing completion. Indeed, OIKN confirmed that as of May 2025, housing for relocating government workers was ready, and key government office complexes were on track for completion by mid-2025. Although the initial target to inaugurate the city in 2024 saw some delays, the first relocation of some government functions is expected by 2024–25. Indonesia's new President (Prabowo Subianto, in office since late 2024) has explicitly endorsed continuity of the project, allocating roughly Rp 48.8 trillion (~US\$3 billion) in the 2025–2029 state budget for Nusantara's next phase. This Phase 2 (2025–2029) centers on completing the national government infrastructure – e.g. parliament and court buildings – and expanding essential infrastructure so that Nusantara can officially become the nation's administrative capital by 2029.

Coordination among stakeholders during implementation has been intense. Regular evaluation meetings are held with ministries, contractors, and consultants to ensure projects stay on schedule. The Nusantara Authority's leadership emphasizes maintaining momentum despite political transitions or economic headwinds. There have been rumors and criticisms about the pace of construction (typical for a project of this scale), but national and local officials have rebutted claims of stagnation by showcasing ongoing works. Public communication is a part of the strategy: Nusantara's site has even become a tourist attraction for Indonesians curious to see the "birth" of their new capital – tens of thousands visited the site during holidays in early 2025 to observe construction progress. To accommodate this and build public support, the Authority has opened parts of the site to visitors and ensured facilities like clinics and temporary accommodations are available. In parallel, basic services such as a hospital (operated by a private chain) and some hotels are already operational in Nusantara to support workers and early visitors.

Going forward, implementation will increasingly shift from core government infrastructure to broader city development. After 2029, Phase 3 and beyond (2030–2045) will involve growth of residential and commercial districts, completion of transport networks (possibly including rail transit), and the full realization of smart systems across the city. The ultimate goal is a self-sustaining city for an estimated 1.5–2 million inhabitants by 2045. Achieving this will require continuous investment and political commitment over multiple administrations. Indonesia is positioning Nusantara as a national legacy project (in fact, the concept of moving the capital dates back to President Sukarno in the 1950s). By institutionalizing the project as part of the country's National Medium-Term and Long-Term Development Plans, and designating it a National Strategic Project, the government has tried to “lock in” Nusantara's priority status. Early signs under the new administration suggest the project will indeed carry on: President Prabowo has not only maintained funding but also inaugurated new initiatives like Danantara (the SWF) to ensure financing, and signaled support for required legislation (e.g. on relocating civil servants).

International Partnerships in Implementation: From the outset, Indonesia has actively courted international cooperation to implement Nusantara. Dozens of MoUs have been signed with foreign governments, companies, and multilateral agencies to bring in expertise and capital. South Korea is one of the key partners, given its experience in building new cities. In 2019, Korea agreed to assist with Nusantara's development and in 2022 the two countries expanded that cooperation, paving the way for Korean firms to build Nusantara's digital infrastructure and e-government systems. President Yoon of Korea noted that Korea can share lessons from constructing Sejong City (Korea's administrative capital) and Songdo (a renowned smart city). Indeed, a number of Korean entities are already on the ground or in planning: LG CNS, a South Korean IT solutions provider, signed an agreement in late 2022 to help design Nusantara's smart city master system using AI, cloud, and big data tools. LG CNS has provided consulting for Nusantara's smart transportation layout – including how to incorporate electric vehicles and intelligent traffic management. Another example is KT Corporation (Korea's telecom giant), which in 2023 formed a task force with Telkom Indonesia to plan data centers, cybersecurity, and AI-powered services for the new capital. Korean conglomerates are also investing: POSCO and others have pledged a collective \$6.7 billion toward Nusantara-related projects supporting “infrastructure, electronic government, and smart city systems”. And at President Jokowi's urging, Hyundai Motor Group is exploring clean mobility solutions for Nusantara – likely electric buses, EV charging infrastructure, and possibly autonomous shuttles – building on Hyundai's broader EV investments in Indonesia.

Other nations are contributing as well. The United Arab Emirates, as mentioned, is deeply involved not just through financing but also knowledge-sharing for Nusantara's planned financial center. In July 2024, Jokowi secured an MoU with Dubai International Financial Centre to help develop Nusantara's financial district and regulatory ecosystem, leveraging Dubai's experience as a global finance hub. The first three Indonesian state banks have already broken ground on their new headquarters there. Additionally, Japan has shown interest in urban infrastructure (though an early potential investor, SoftBank, withdrew in 2022, Japan's JICA and companies may re-engage in specific projects). Meanwhile, the U.S., through USTDA and private firms, as we saw, is supporting the digital

infrastructure side. Even smaller partnerships are emerging: for example, Masdar from UAE is conducting feasibility for a 200 MW solar plant in Nusantara, and agencies like UNDP are advising on sustainable development metrics and governance practices. This international mosaic is integral to Nusantara's implementation – Indonesia is essentially leveraging a global network of expertise to build a city from scratch.

The Indonesia's new capital project is not only a national endeavor but a platform for international collaboration in smart city development. In particular, South Korea's expertise and industry align closely with Nusantara's needs, creating significant opportunities for Korean companies to participate. South Korea is regarded by Indonesia as a "critical partner" for building smart cities, given its track record with Songdo (a leading smart eco-city) and Sejong (planned administrative city). The Indonesian government has explicitly invited Korean firms, even suggesting they form a consortium ("One Team Korea") to jointly bid on Nusantara projects. To translate these opportunities into mutual success, we offer the following recommendations in key sectors:

Digital Infrastructure & Connectivity: Korean telecommunications and IT service companies should continue to collaborate on Nusantara's digital backbone. This includes building 5G networks, fiber optic backbones, data centers, and cloud services for the city. The KT-Telkom Indonesia partnership is a strong model – by pooling KT's advanced ICT know-how (such as quantum cryptography for secure communications) with Telkom's local infrastructure, both sides benefit. We recommend Korean firms also engage in Nusantara's emerging smart city platform integration – for instance, providing solutions for IoT sensor networks, urban data analytics, and cybersecurity. Korea's experience in establishing citywide command centers (as in Seoul's TOPIS traffic management system) can be invaluable. Korean SMEs with niche tech (e.g. smart street lighting, environmental sensors) might partner via larger integrators or directly through Indonesia's startup programs in Nusantara.

Smart Mobility and Transportation: Nusantara's transport plan offers openings for Korean involvement in electric vehicles (EVs), public transit, and traffic management systems. Hyundai Motor and its affiliates (Kia, Hyundai Engineering) are well-positioned to supply electric buses, EV charging infrastructure, and even autonomous vehicle pilots in the new city. Jokowi's personal ask to Hyundai to provide "clean mobility solutions" underscores Indonesia's interest in Korean automotive technology. Additionally, Korean expertise in mass rapid transit and smart traffic control can support Nusantara's goals of efficient mobility. For example, LG CNS's work on Nusantara's smart transit design could lead to implementing AI-driven traffic signal control or a Mobility-as-a-Service platform (areas where Korean urban tech firms excel). We recommend Korean companies explore partnerships to build an electric BRT (bus rapid transit) system or light rail in Nusantara – a possibility as the city grows. Given that Indonesian firms will handle much civil construction, Korean firms can focus on supplying technology (rolling stock, signaling, automation) and operational expertise.

Energy and Smart Utilities: Korea's advanced capabilities in renewable energy, smart grids, and energy storage can find a place in Nusantara's energy infrastructure. The city's aim to run on clean energy (solar, possibly wind or bioenergy) and incorporate smart grid management means there will be tenders for grid equipment, battery storage systems, and energy management software. Korean companies like KEPCO (with its smart grid experience on Jeju Island), LG Energy Solution or Samsung

SDI (for battery systems), and Doosan (in fuel cells or power plants) could contribute solutions. One concrete area is waste-to-energy and smart waste management: Indonesia is keen to address waste sustainably, and Nusantara has a smart waste guideline in place. Korean firms known for waste processing technology or circular economy solutions (such as eco-friendly incineration or recycling facilities) could pilot projects in Nusantara. We recommend that through mechanisms like the Korea-Indonesia Green New Deal cooperation, Korean firms propose renewable projects, possibly co-investing through Danantara or other investment vehicles. The recent UAE-Danantara deal for a 10 GW renewable plant may open sub-contracts or consortium roles for technology providers. Korean companies should actively engage with OIKN's Investment Office to stay informed of upcoming energy PPP opportunities.

E-Government and Smart Governance Services: Building the digital government infrastructure for a new capital is a unique opportunity to embed the latest e-government systems. Korea consistently ranks at the top of UN e-government indices and can export that expertise. Opportunities include developing Nusantara's digital ID systems, government cloud platforms, online citizen services, and big data analytics for policy. For instance, Indonesian authorities want Nusantara's administration to be a showcase of efficient governance – one example goal is real-time budgeting and transparent service delivery through apps. Korean IT service providers (such as Naver, Kakao, or smaller GovTech startups) could partner to create citizen portals or smart city apps. Additionally, since the Nusantara Authority will manage land and permits, Korean companies could supply land information systems, smart permitting software, and GIS (geographic information) systems – areas where Korean agencies (like LX, the Korea Land and Geospatial Informatix Corporation) have experience internationally. We recommend that the Korean government facilitate a public-private delegation to work with OIKN on e-government, building on the MoU already in place for digital cooperation. This could involve offering technical training or demo projects, ensuring that Korean standards and products are considered in Nusantara's digital governance rollout.

Artificial Intelligence and City Services: AI technologies are poised to enhance many smart city functions in Nusantara – from predictive traffic control to automated security monitoring and AI-based public chatbots. South Korea's ICT firms and startups are strong in AI R&D and could find niches in Nusantara's development. For example, KT's collaboration explicitly includes exploring AI adoption in traffic, energy use, etc. We see potential for Korean AI solutions in public safety (CCTV analytics, disaster early warning), healthtech (smart hospitals, telemedicine integration for Nusantara's healthcare system), and education (AI-powered personalized learning for new schools). To capitalize on this, Korean companies should participate in Nusantara's pilot programs. The USTDA-financed command center pilot, for instance, is demonstrating U.S. solutions; a parallel initiative could be proposed with Korean solutions for certain city services. One idea is a Korea-Indonesia Smart City lab or innovation center in Nusantara, incubating AI applications jointly. This would not only showcase Korean tech but also help train Indonesian talent (fulfilling Nusantara's goal as a talent hub). Korean AI firms could coordinate with Indonesian agencies like BPPT (Agency for the Assessment and Application of Technology) or local universities in Kalimantan to run such programs.

Construction Technology and Smart Building: Given the scale of construction, Nusantara is adopting modern construction technologies – BIM (Building Information Modeling), prefabrication, IoT in construction, etc. Korean construction companies (Hyundai E&C, Samsung C&T, GS E&C, etc.) are highly experienced in large-scale projects and could offer innovative building techniques to Nusantara. For example, modular construction and smart building systems can speed up development while maintaining quality. There's already some collaboration: a Korean firm, Samsung C&T, signed an MoU with an Indonesian developer (Sinar Mas Land) to implement smart city tech in another project, which signals interest in applying Korean smart building solutions. In Nusantara, opportunities include building iconic structures (e.g. cultural centers, stadiums) with advanced design, or providing smart building management systems for energy efficiency in government offices and housing. The Nusantara Smart Building Guidelines emphasize sustainable design, resource-efficient HVAC and lighting, and sensor integration. Korean firms that produce IoT building sensors, smart elevators, solar panels, or advanced materials should target Nusantara's building projects. We recommend Korean EPC (engineering-procurement-construction) firms to join consortia bidding on upcoming construction phases, especially where smart tech integration is valued. Close communication with OIKN's infrastructure and green transformation deputies (possibly through the "One Team Korea" platform) will help identify these bids early.

Policy and Strategic Recommendations: To facilitate Korean participation, certain supportive measures could be taken by both governments. The Korean government might enhance financing support (via KOICA, EXIM Bank or other funds) for feasibility studies and pilot projects in Nusantara that involve Korean SMEs, lowering the risk of entry. Likewise, Indonesia could ensure that investment guarantee and risk mitigation mechanisms are in place – indeed, Indonesia's investment ministry has introduced guarantees to boost foreign investor confidence in IKN projects. Transparent procurement processes and clarity in land-lease terms will further encourage Korean firms to commit. Another recommendation is fostering people-to-people exchange and training: e.g., sending Indonesian smart city officials to Korea for short-term training (some delegations have already visited Songdo/Sejong), and conversely inviting Korean experts to Nusantara's planning team. This will cement working relationships and align expectations. Finally, Korean companies should approach Nusantara not just as a one-off construction boom, but as a long-term partnership in city-building. Nusantara will need continuous innovation for decades – from maintaining ICT systems to expanding transit lines. Those who invest early in understanding local needs and building a positive presence (for example, through CSR activities in East Kalimantan communities or collaborations with Indonesian startups) may gain a lasting foothold. Given that Nusantara aspires to be "a main reference for smart city development... across the world," companies that contribute to its success can bolster their reputation globally. In summary, the recommendation is for Korean stakeholders to engage proactively, collaboratively, and with a long-range view, aligning Korea's advanced solutions with Indonesia's bold vision for Nusantara.

Indonesia's Nusantara capital project is reshaping the country's approach to urban development, blending smart city innovations with a quest for sustainability and national transformation. This issue paper has explored how Nusantara is more than a physical relocation of government—it is a strategic move to build a new city paradigm: one that leverages technology to enhance governance, economy, and livability, while pursuing ambitious green goals like net-zero emissions and forest conservation. We have seen that the Indonesian government has laid out clear frameworks (the Smart City Blueprint, SDG integration, a dedicated Authority) and made early progress in construction and investment. At the same time, challenges remain in securing the vast private investment required and in managing environmental and social impacts. Continued high-level commitment – now spanning two presidencies – and robust stakeholder coordination will be critical to keep Nusantara on track through 2045.

For South Korea and other international partners, Nusantara stands as an unprecedented opportunity to participate in creating a “city of the future.” Korean experiences in building smart, sustainable cities are directly informing Nusantara's planning, and Korean businesses are already contributing in areas like digital infrastructure, mobility, and city management. As Indonesia continues to foster global partnerships – with countries like the UAE, South Korea, Japan, the US, and more – Nusantara could become a showcase of international cooperation in urban innovation. The sectors identified for potential Korean participation demonstrate a mutual interest: Indonesia gains world-class technology and expertise, while Korea strengthens its role as a global smart city leader by exporting its solutions and know-how.

In conclusion, Indonesia's smart city development in Nusantara is a bold, long-term endeavor that could redefine sustainable urbanization in the region. If successful, Nusantara will not only alleviate Jakarta's burdens but also spur economic growth in Kalimantan, model new standards for livability, and help Indonesia leapfrog into a digital, green economy era. The journey from dense forest to a thriving high-tech city is underway, with over \$4 billion already invested and major infrastructure rising from the ground. Yet, much of Nusantara's story is still to be written. By maintaining an evidence-based, inclusive approach – learning from global best practices and engaging stakeholders at every level – Indonesia can ensure Nusantara realizes its lofty vision. For industry professionals and international partners, staying engaged with Nusantara's development offers invaluable insights and opportunities to contribute to one of the world's most audacious city-building projects. Nusantara's success would be a powerful testament that smart, sustainable cities are not just theoretical ideals but achievable realities – forged through innovation, investment, and collaboration on an unprecedented scale.

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