Urban Experts Join Forces to Develop Results-Driven Playbook for Becoming a Smart City

Study will define cost-benefits of smart-city investments and provide city and business leaders with an evidence-based guide for future sustainable growth

May 6, 2019 *(Philadelphia, PA)* – ESI ThoughtLab announced today the launch of its 2019 Smart City Research Initiative, *Building a Hyperconnected City: Business models, use cases, and benchmarks behind high performance.* Given the rapid pace of digital change, urban leaders need an evidence-based playbook to help them identify the technologies and data solutions that will provide the greatest social, economic, and business benefits to citizens and companies. Ultimately, by using technology to transform and interlink key elements of their urban ecosystems, smart cities can promote a virtuous cycle of economic growth and social well-being that will attract more business, talent, and investment.

Yet urban leaders face a huge information gap on the economics of smart cities—a gap that is impeding the ability of communities to transform into digitally-empowered, sustainable cities of the future. This ground-breaking follow-up to last year's study, *Smarter Cities 2025,* will fill this void by examining the ROI of smart city programs of 100 leading cities around the world of varying sizes and levels of economic development.

"Businesses and residents around the world are embracing technological innovation faster than many cities can react. With digital change happening in hyper-speed, urban leaders need to act now to bridge the technology gap between their cities and stakeholders," said Lou Celi, CEO of ESI ThoughtLab. "But to make this happen, city leaders need rigorous analysis on the smart investments and practices that will drive the best economic, business, and social outcomes."

To provide city leaders with the analysis they need to create digitally-enabled and interlinked urban ecosystems, ESI ThoughtLab has formed a coalition of top companies with expertise in key sectors within cities. This coalition includes Deloitte, Oracle, Eaton Lighting, NTT Group, Stantec, Pennoni, Nokia, Cognizant, and Visa. The coalition also comprises research leaders from the private and public sectors, including the Organization for International Economic Relations (OiER), the Penn Institute of Urban Research, the IESE Business School Cities in Motion, MetroLab Network, Viable Cities, the Smart Cities Council, Renaissance Urbaine, ANBOUND, the Re-Imagining Cities Foundation, and more.

Comprehensive evidence-based analysis

Working together with the coalition of companies and research partners, ESI ThoughtLab's team of urban experts, economists, and thought leadership specialists will draw on advanced analytics and economic models to conduct this comprehensive research program. The program will include:

- A rigorous benchmarking study of 100 smart cities of varying sizes, locations, and levels of economic development;
- Development of a database including data from the smart cities themselves, respected secondary sources, and corporate and research members of the coalition;
- Analysis of smart city investments and returns in all parts of a city's ecosystem, including mobility and transportation, energy and the environment, IT infrastructure and telecoms, water and waste management, buildings and infrastructure, safety and health, and talent and education;
- Measurement of performance impacts from the use of emerging technologies, including AI, blockchain, IoT, cloud, open platforms, 5G, data warehouses/lakes, mobile apps, virtual and augmented reality, and drones and robots;
- Creation of bespoke cost-benefit models quantifying the impact and payback period of smart city investments across the urban ecosystem; and
- In-depth interviews with key city leaders to gain insight into best practices and proven use cases of smart initiatives, with ROI analysis, in key areas of the urban ecosystem.

ESI ThoughtLab will conduct the research over the next eight months and release the results at the Smart City Expo World Congress in Barcelona in late November. The program output, which will be provided for free, will include an eBook, executive summary, city benchmarking platform, and a microsite that urban leaders can use to help them drive high performance from their smart city initiatives. "By drawing on the data and resources of our coalition of corporate and research partners, as well as city benchmarking participants, we aim to deliver a concrete roadmap to becoming a smart city," said Dr. Daniel Miles, ESI ThoughtLab's Chief Economist and Research Manager for the program.

Additional information can be found by visiting: https://econsultsolutions.com/esi-thoughtlab/hyperconnected-city/

For more information, you can also contact:

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About our research coalition

ESI ThoughtLab is an innovative research firm providing fresh ideas and actionable insights through rigorous data analysis. We specialize in assessing the impact of technological, economic, and

demographic shifts on companies, industries, and cities. ESI ThoughtLab 's team of seasoned economists and thought leaders have many years of experience in conducting urban analysis.

Cognizant is a multinational corporation that provides IT and business services, including digital, technology, consulting, and operations services. Cognizant's industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses.

Deloitte provides industry-leading audit, consulting, tax, and advisory services to many of the world's most admired brands, including nearly 90% of the Fortune 500 and more than 5,000 private and middle market companies. Our people work across the industry sectors that drive and shape today's marketplace to make an impact that matters — delivering measurable and lasting results that help reinforce public trust in our capital markets, inspire clients to see challenges as opportunities to transform and thrive, and help lead the way toward a stronger economy and a healthy society. Deloitte is proud to be part of the largest global professional services network serving our clients in the markets that are most important to them.

Eaton Lighting delivers an industry-leading portfolio of innovative lighting solutions for connected buildings, homes and communities, including reliable indoor and outdoor smart lighting, and control solutions specifically designed to simplify and personalize lighting for consumers, help solve complex business challenges, and leverage data insights to meet customers' unique needs. Eaton lighting solutions serve a wide range of customers, including architects, engineers, facility managers, municipal leaders, electrical distributors, and contractors in the commercial, industrial, retail, institutional, residential, utility, and other markets. For more information, visit Eaton.com/lighting

Nokia creates the technology to connect the world. Powered by the research and innovation of Nokia Bell Labs, we serve communications service providers, governments, large enterprises, and consumers, with the industry's most complete, end-to-end portfolio of products, services, and licensing.

We adhere to the highest ethical business standards as we create technology with social purpose, quality, and integrity. Nokia is enabling the infrastructure for 5G and the Internet of Things to transform the human experience.

NTT Group is one of the world's largest ICT companies with more than $100 billion in sales and business footprints in 88 countries and regions, inheriting our story of innovation for more than 120 years. To learn more about NTT's Smart Platform and how the company is accelerating Smart Cities globally, visit NTT's website (http://www.ntt.co.jp/news2018/1805e/180502a.html) and watch the case study on YouTube (https://www.youtube.com/watch?v=wVpX57OvWE8&feature=youtu.be).

NTT Group accelerates customers' digital agenda with full stack, full life cycle capabilities, and world leading research and development, resulting in more than 88 Fortune 100 companies as customers. For more information, visit www.ntt-global.com.

Oracle offers a complete suite of integrated applications plus highly automated and secure generation 2 infrastructure featuring the Oracle Autonomous Database. With Oracle, customers can modernize their operations and take advantage of emerging technologies to better engage citizens and serve their communities.

Pennoni is a consulting engineering firm providing services that help communities and private sector clients alike navigate the ever-changing technological advancements available and learn how best to integrate "smart" solutions into today's built environment. As part of their involvement in the smart city initiative, they utilize and continue to discover new and innovative methods in the delivery of services for smart, sustainable, and resilient solutions for projects across the globe. Across all market sectors, Pennoni works with project owners, end users, stakeholders, and teaming partners to develop solutions that truly make Pennoni "Partners For What's Possible."

Stantec designs with community in mind. We care about the communities we serve—because they're our communities too. This allows us to assess what's needed and connect our expertise, to appreciate nuances, and envision what's never been considered, to bring together diverse perspectives so we can collaborate toward a shared success. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

Visa is the world's leader in digital payments. Our mission is to connect the world through the most innovative, reliable and secure payment network -- enabling individuals, businesses, and economies to thrive. Our advanced global processing network, VisaNet, provides secure and reliable payments around the world, and is capable of handling more than 65,000 transaction messages a second. The company's relentless focus on innovation is a catalyst for the rapid growth of connected commerce on any device, and a driving force behind the dream of a cashless future for everyone, everywhere. As the world moves from analog to digital, Visa is applying our brand, products, people, network, and scale to reshape the future of commerce. For more information, visit About Visa, https://usa.visa.com/visa-everywhere/blog.html and @VisaNews.

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