

Systematic Impact Leadership Strategy

Region	Europe and Central Asia
Award Scheme	Shanghai Manual
Themes	Data-Driven Process and Management Urban Governance and Legal Frameworks
Sustainable Development Goals	Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable Goal 16 - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Summary

Espoo’s Systematic Impact Leadership Strategy embeds data, digital tools and systems thinking into city governance to address rapid urban growth, social inclusion and climate neutrality. Developed with the VTT Technical Research Centre, it institutionalizes data-driven leadership and cross-departmental collaboration under the city’s long-term vision, the Espoo Story. Using artificial intelligence, cloud integration and predictive analytics, Espoo enhances decision-making and service delivery from identifying at-risk youth through anonymized welfare data to forecasting social and environmental needs. The ReStart Espoo programme applied impact modelling and cloud-based integration to support post-pandemic recovery and guide financial and policy priorities. The Digital Agenda 3.0 and Sustainable Espoo initiatives drive co-creation, innovation and low-carbon development, aiming for carbon neutrality by 2030 and full SDG alignment by 2025. Flagship pilots such as the Kera District, LuxTurrim5G and Positive Energy Communities serve as living laboratories connecting energy, data and mobility systems. Through structured training in impact assessment, systems thinking and experimentation, Espoo has built the internal capacity to scale citizen-centric innovation. By combining predictive technologies with participatory governance and continuous learning, the city offers a transferable model of evidence-based, inclusive and sustainable urban management.

Background and Objective

Espoo is a fast-growing network city within the Helsinki Metropolitan Area facing challenges of integration, climate action and sustainable service delivery. To strengthen inclusivity and innovation, the city launched the Systematic Impact Leadership Strategy in 2019 with the VTT Technical Research Centre. The goal is to unify municipal operations through data-driven decision-making, systems thinking and co-creation. Objectives include improving efficiency, anticipating social needs, fostering sustainability and integrating impact assessment into all urban strategies. The approach emphasizes foresight-based governance that aligns technological progress, environmental goals and citizen participation under a shared long-term vision of sustainable growth.

Actions and Implementation

Implementation integrates data, artificial intelligence and impact modelling to guide policy. The ReStart Espoo programme used open data and AI to simulate economic recovery and resource allocation through the CityTune tool. Cloud-based integration with Finnish firm Digia streamlined municipal workflows, while AI developed with Tieto predicted social service needs. The Digital Agenda 3.0 tested co-created digital service prototypes, and the Sustainable Espoo programme consolidated pilots advancing SDG and carbon-neutral targets. Pilot projects such as Kera District, LuxTurrin5G and Positive Energy Communities tested system-wide interactions across mobility, energy and governance, linking data-driven analysis with inclusive urban innovation.

Outcomes and Impacts

Espoo has transformed into a learning and data-driven city where digital tools, predictive modelling and co-creation inform daily governance. The integration of AI into social services improved early detection of vulnerable populations, while cross-sectoral data systems enhanced urban resilience and resource use. Pilot projects delivered measurable progress toward carbon neutrality and circular economy objectives. Staff training institutionalized systems thinking, creating a shared capacity for impact assessment and experimentation across departments. By connecting innovation ecosystems, local communities and private partners, Espoo strengthened sustainability governance, improved service efficiency and positioned itself as a European model for inclusive, data-informed urban transformation.

Sustainability and Scalability

Sustainability is embedded in Espoo's systems approach, which aligns environmental, social and digital goals under the Sustainable Espoo programme. Continuous experimentation and data integration ensure adaptability, while shared digital infrastructure enables replication across departments and partner cities. Modular pilot projects such as Kera District demonstrate replicable frameworks for low-carbon development. The strategy's governance model combining co-creation, open data and institutional training allows scaling without loss of local relevance. External funding from the EU and partnerships with technology firms secure long-term viability. Espoo's emphasis on foresight and systems learning ensures its model can evolve and be transferred internationally.

Gender and Social Inclusivity

The strategy prioritizes inclusivity by integrating citizen participation and human-centred design into all pilots. Data ethics and anonymized datasets protect privacy while enabling targeted interventions for vulnerable groups. Co-creation ensures that migrants, youth, families and persons with disabilities help

shape service design. AI-based welfare prediction supports early assistance, reducing risks of exclusion. In training and leadership, gender equality and diversity are promoted through equitable participation in impact assessment and experimentation projects. Digital tools and outreach activities improve access to services across language and cultural barriers, ensuring that Espoo's smart city transformation remains socially just and participatory.

Innovative Initiative

Espoo's innovation lies in combining systems theory, impact leadership and digital transformation into one coherent governance framework. Unlike traditional smart city models focused on technology deployment, Espoo emphasizes cause-effect mapping, cross-sectoral data integration and co-created experimentation. The CityTune impact simulation tool and AI-based predictive services translate complex data into actionable insight, while smart infrastructure projects like LuxTurrin5G operationalize real-time data for energy and mobility optimization. Embedding experimentation within policy cycles ensures continuous learning and adaptation. The approach redefines innovation as a collaborative process where digital tools, social inclusion and environmental responsibility advance together toward measurable impact.

Resources devoted to delivery

Espoo's strategy is supported by city investment in digital infrastructure, EU research and innovation grants, and partnerships with technology firms such as VTT, Digia, Nokia and Tieto. Funding supports data platforms, training, AI systems, and pilot development under the Sustainable Espoo programme. Staff training and co-creation workshops build internal capacity, while universities and research centres provide technical expertise and evaluation. Many pilots leverage external financing, including European Lighthouse City funding for energy-positive districts. Resource allocation emphasizes experimentation, knowledge transfer and continuous improvement, ensuring that financial, human and technical investments reinforce each other within a sustainable governance model.

Conclusion

Espoo's Systematic Impact Leadership Strategy illustrates how a city can integrate systems thinking, data analytics and participatory governance to drive sustainable transformation. By embedding experimentation into management and aligning technology with citizen well-being, Espoo has created a self-learning governance model that anticipates change rather than reacts to it. Its fusion of AI, digital infrastructure, co-creation and staff training delivers measurable progress toward carbon neutrality, social inclusion and service efficiency. The approach demonstrates that smart city innovation succeeds when grounded in impact leadership, transparency and human values, offering a transferable model for resilient, sustainable and equitable urban governance.