



INTERVIEW

IN CONVERSATION WITH
JUKKA MÄKELÄ

Radical Collaborations for Innovative Urban Solutions

Jukka Mäkelä, Mayor of Espoo, Finland, discusses the city's approach of leading the city strategy based on a co-created narrative—the Espoo Story—to achieve a sustainable and inclusive society.



| Image: City of Espoo, Olli Urpela



Our goal is to be a responsible and humane pioneer city and a good place for everyone to live, learn, work, and be an entrepreneur.



With its cultural landscape, architectural gems and vast natural areas, Espoo has a reputation as "Finland in miniature". Could you share more about Espoo?

For a long time, Espoo was a quiet countryside parish. Over the last 50 years, Espoo has developed from a town of 100,000 residents into one of the leading innovation communities in Europe. With a population of 300,000 today, Espoo is the fastest growing city in Finland. It is home to 155 different nationalities, with growth coming mostly from international immigration.

As a network city, Espoo has five unique urban centres which are connected by public transport and designed to provide services to residents in the immediate neighbourhood. It is economic, ecological, social, and cultural sustainability at its best.

Espoo is a rare mix of deep tech and nature. The city is recognised as a hub for know-how, research, and development, with Aalto University at its heart. Over half the population have a higher education degree. Espoo is also a centre of international company headquarters and high-tech businesses, such as Nokia and Kone. Almost half of the turnover on the Helsinki Stock Exchange comes from companies based in Espoo.

At the same time, over 90% of Espoo residents live no more than 300 metres from a nature area. Espoo is home to 165 islands, 95 lakes and a 40 km long shoreline on the Baltic Sea. The Nuuksio National Park attracts visitors from near and far. The all-surrounding nature is one of the things Espoo residents value the most.

Espoo uses English as a service language and offers services tailored to meet the needs of an increasingly diverse population. We support everyone moving here by creating a sense of belonging. In Espoo, residents can truly make a difference.

We address the challenges of demographic changes, climate change and the other global issues by working together. Our goal is to be a responsible and humane pioneer city and a good place for everyone to live, learn, work, and be an entrepreneur.

To tackle these challenges, we need to combine technological innovations, with a strong focus on sustainability and inclusive development of city services. This is the basis of our city strategy, the Espoo Story. It is a visionary narrative created through an inclusive process, involving our city employees, residents, communities, and companies. Espoo's approach of leading the city strategy and political action based on a co-created narrative is unique – and has proven to be impactful.

Espoo's Voluntary Local Review (VLR) extensively involved people and stakeholders from all walks of life and is an inspiration as to how a city can localise the United Nations' Sustainable Development Goals (SDGs) 2030. Can you share more about the VLR?

Being among the forerunner cities to reach the United Nations 2030 Agenda for SDGs by 2025, our aim is to accomplish this objective while upholding the spirit of "leave no one behind". For us, the SDGs are not only a way of

Espoo is known as "Finland in miniature".
Image: Visit Espoo, Marjaana Tasala





Situated by the sea in south-eastern Espoo, Keilaniemi is a hub of high tech, innovations and business life.
Image: Visit Espoo, Tomi Tähti

measuring our sustainability – but also a way to learn how we can become more sustainable and to share our vision and aspirations with our residents, partners, and other cities.

The VLR is based on the city's long-term work to promote economic, ecological, social, and cultural sustainability. The VLR process is initiated and decided by the city management and jointly implemented by the entire city organisation and its stakeholders.

More than 1,000 people participated in the voluntary review process, through which pragmatic and concrete ideas, projects and actions were reviewed against the UN 2030 agenda and the SDGs. The rationale behind this holistic process is simple: the SDGs are both a cornerstone and a capstone that we will use to determine our actions for Espoo.

Espoo's VLR has been referenced by UN-Habitat, UN DESA, the EU, Nordregio, several European and global regions and cities, as well as other organisations as a model for participatory process. Consequently, the City of Espoo is a Lead Partner in the strategic SDG network of nine European forerunner cities for developing sustainability governance until end 2025.



The city orchestrates the cooperation, brings together different actors and builds a project portfolio aimed at solving systemic challenges in the city, piece by piece.



What is the role of innovation in the Espoo Story and Espoo's sustainable and inclusive development goals?

According to the Espoo Story, Espoo aims to be known as Finland's safest and most vibrant pioneer city for education and culture, expertise, innovation, and business with strong international connections. Espoo is one of the leading cities that is combining technological innovations with ambitious sustainability goals and inclusive development of city services.

Today, Espoo's 300,000 inhabitants churn out roughly 60% of Finland's patent applications—the fourth highest number per capita among all cities in Europe. In 2020, Espoo-based start-ups raised almost half of the total Finnish capital invested and Espoo's total amount was the eighth highest in Europe.

In 2022, Espoo was one of the cities chosen to be an experimentation and innovation hub under the new EU Mission on 100 Climate-neutral and Smart Cities by 2030, to lead the way for all European cities to achieve similar goals by 2050.

In Espoo, we believe in radical cross-disciplinary collaboration—a form of working where people from all walks of life collaborate to find new solutions to major systemic problems of our century. With over 400 research and development outfits, a top-level business, design and tech university, and a host of leading companies clustered in a small area, Espoo is likely to be the world's densest centre of systemic innovation. The city, together with Aalto University and Technical Research Centre VTT, forms a core that brings together all players—start-ups, students, top companies, researchers, and ordinary citizens—to create innovation for a better life. In Espoo, decision-makers, thinkers and doers from all industries and disciplines are just a bike ride away, which provides a good basis for collaboration and innovation.

An example of such collaboration is the Sustainable Espoo programme, which launched its third consecutive term in 2021. Its goal is to support the implementation of the Espoo Story through co-creating innovations that drive systemic change towards a climate-neutral city. In practice, the City of Espoo, together with its partners, co-creates innovations that are both sustainable and commercially successful. Focus areas include smart energy,



Kera Talks is Kera's sustainable urban development event that convenes cities, companies, research institutes for open dialogues and partnership building.
Image: City of Espoo, Kerttu Penttilä

smart mobility, circular economy, city planning and built environments. The city orchestrates the cooperation, brings together different actors and builds a project portfolio aimed at solving systemic challenges in the city, piece by piece.

The results include carbon-neutral district heating during the 2020s and co-designing new city districts. One such district is Kera, an old industrial area which is being transformed into a circular sustainable neighbourhood with housing for 14,000 people and 10,000 jobs. The Kera district has become known for its innovative use of disused spaces. Since 2019, old logistics buildings and factories have provided temporary bases for start-ups and companies to run their operations from, including growing mushrooms, microbreweries, gyms, an all-wheel park, and so much more.

Even though some of the buildings will be demolished eventually, the communal, circular, and carbon-neutral brand and ideology created will form a foundation for the new district. Industrial activities are being replaced by vibrant urban culture, art, events and services, many of which are based on the sharing of resources and the circular economy.

The overarching idea driving Kera's transformation is sustainability. At the same time, we are seeking ways to solve larger issues, such as climate change, loss of nature and the energy revolution. Kera is a testbed for various sustainable development solutions, ranging from the 19 smart poles



Transforming a former logistics area, Keran hallit is a facility in temporary use, which also houses the largest mural cluster in Finland, local production from breweries to urban cultivation, and a sports centre.
 Image: Visit Espoo, Antti Rastivo



A 40m pilot mini-street at Keran hallit, opened on June 2022, sets the direction for future street environments by providing light street equipment that can be easily changed. People are encouraged to hold events there, with no need for additional permissions, and companies can showcase their sustainable urban solutions. Here, Hyperion Robotis present their street furniture: concrete flower boxes 3D printed with their technology which replaces carbon-emitting cement with a zero-emission binder made from the side streams of mining.
 Image: City of Espoo, Kerittu Penttilä

used to test sustainable mobility solutions near the Nokia headquarters, to the pioneering of a carbon negative district heating network, and experimenting with the future of a socially and ecologically sustainable streetscape at Kera New Street.

The story of Kera suggests that cities may have to grow in their role as a digital services platform and producer. What are some important considerations for city governments?

In the rapidly growing City of Espoo, multiple regional development projects are taking place simultaneously. Without sophisticated digital design tools, such as BIM (building information modelling) solutions, and harmonised information management practices, it would be nearly impossible to carry out complex and evolving urban development projects like those in the Kera district.

An excellent example of this is the use of Espoo 3D city model and digital platforms by local project managers to integrate diverse stakeholders using shared virtual environments. These virtual platforms enable stakeholders to observe and analyse alternative design solutions for supporting the requirements of functional and sustainable urban districts. Furthermore, the digital platforms allow project managers to engage in dialogue with residents to understand specific needs. These may include the requirements of individuals with reduced mobility, or insights into designing and locating services within developing city districts.

The City of Espoo has a long tradition of innovation cooperation between schools and entrepreneurs. Espoo's schools have become innovation platforms by experimenting with education innovations, and early childhood education units have adopted digital play equipment and participated in their co-development. This established process speeds up the entrepreneur's innovation development, while teachers, students and children have opportunity to learn about new technologies and innovation, and even influence the design of more user-friendly solutions.

The same experimental culture extends into the development of other city services and the Digital Agenda programme. The involvement of residents and businesses in developing Espoo's services has accelerated the digitalisation goals of the Espoo Story.

What does the future look like for Espoo?

Co-created by thousands of Espoo residents, the Espoo Story strategy defines our vision and key goals by 2025. Espoo, together with its partners Aalto University and Technical Research Centre VTT, aims to strengthen its position in the international arena as the most interesting and attractive centre of innovation in Northern Europe.



Espoo provides an administrative structure and facilitates sustainable innovation. In other words, instead of direct economic results, the city is here to create opportunities.





It all comes down to the spirit, the action, and the people.



We aim to be climate-neutral by 2030. Together with our partners, we will move towards net zero by investing in clean energy, the circular economy, sustainable land use and construction, as well as sustainable transportation. To achieve a climate-neutral Espoo, we are finding ways to rapidly reduce CO2 emissions while building a unique innovation ecosystem for piloting emerging smart and sustainable solutions. The use of coal in district heating will be abandoned by 2025 and replaced by renewable energy sources. The world's largest waste heat recovery project for data centres by Microsoft and Fortum will be built in Espoo and will demonstrate cross-industry collaboration that is unique to Espoo.

This cooperation contributes not only to our own climate goals but also increases the size of our community's carbon handprint, as innovations developed in Espoo will contribute to the reduction in global emissions. Businesses in Espoo will first pilot solutions locally and then export the best solutions globally. Investments in carbon-neutral solutions will also create jobs and strengthen the city's economy.

Polycentric urban planning is our strategy for securing spaces for innovation and creating new connections. A networked city structure with rail transport and access to clean nature will provide us with optimal opportunities to develop our city.



Polycentric urban planning connects spaces and people, and facilitates collaboration and innovation.
Image: Visit Espoo, Omar El Mrabt



Access to clean nature in Keilaniemi enables sports and recreation alongside economic activities.

Image: Visit Espoo, Antti Rastivo

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The city provides an administrative structure and facilitates sustainable innovation. In other words, instead of direct economic results, the city is here to create opportunities. What guides our innovation and strategy implementation is the vision that Espoo will play a significant role in developing and activating networks to support innovation by individuals, communities and companies, as well as through collaborative development and testing.

Once this is in place, it all comes down to the spirit, the action, and the people. We believe that the companies and people working here may well have the biggest positive handprint per capita in the world and the smallest gap between personal and organisational values. 🌱