



#iCapitalAwards



**THE EUROPEAN
CAPITAL OF
INNOVATION
AWARDS**



Horizon Europe Application Form

Technical Description (Part B)

The European Capital of Innovation Awards 2023

Version 1.0
08 March 2023



IMPORTANT NOTICE

What is the application form?

The application form is the template for EU prize applications. It must be submitted via the EU Funding & Tenders Portal before the call deadline.

The form consists of 2 parts:

- Part A contains structured administrative information
- Part B is a narrative technical description of the application.

Part A is generated by the IT system. It is based on the information which you enter into the Portal Submission System screens.

Part B needs to be uploaded as PDF (+ annex) in the Submission System. The templates to use are available there.


How to prepare and submit it?




The application form must be prepared by the city and submitted by a representative. Once submitted, you will receive a confirmation.

Character and page limits:

- page limit: **30** pages.
- Annex: the only mandatory annex required is the city Mayor's (or the equivalent highest political representative) endorsement. This document should be uploaded in the system separately from Part B. (max 2 pages)
- Minimum font size — Arial 9 points
- page size: A4
- margins (top, bottom, left and right): at least 15 mm (not including headers & footers).

Please abide by the formatting rules. They are not a target! Keep your text as concise as possible. Do not use hyperlinks to show information that is an essential part of your project.

 If you attempt to upload an application that exceeds the specified limit, you will receive an automatic warning asking you to shorten and re-upload your application. After you have submitted it, any excess pages will be made invisible and thus disregarded by the evaluators.

-  **Please do NOT delete any instructions in the document. The overall page-limit has been raised to ensure equal treatment of all applicants.**
-  **Please do NOT modify this template. You must use it without altering its format (i.e., Do not include the logo of your city in the header nor as a footnote).**
-  **Before submitting your application, please ensure that the correct prize category is selected.**

APPLICATION FORM (PART B)

COVER PAGE

Part B of the Application Form must be downloaded from the Portal Submission System, completed, and then assembled and re-uploaded as PDF in the system.

Note: Please take due account of the call conditions published on the Portal. Pay particular attention to the award criteria; they explain how the application will be evaluated.

PROJECT ¹	
Project name:	City of Linköping FUTURE NOW - where ideas come to life
Project acronym:	FUTURE NOW
Coordinator contact:	Malin Ljung, City of Linköping
Prize category:	European Rising Innovative City
City population (include reference year)	166 673 (01-01-2023)

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1. SUMMARY

Application summary
See Proposal Abstract (Part A).

¹ For ease of reference and consistency on the Funding & Tenders Portal, the terms ‘call’, ‘project’, ‘proposal’, ‘coordinator’ or ‘beneficiary’ (or other project-related acronyms like COO or BEN) are used as equivalent to ‘contest’, ‘application’ or ‘contestants/applicants’.

2. DETAILED DESCRIPTION

Detailed description of the application

The texts should provide a clear overview of your city's excellence in relation to the objectives of the prize. Describe the application in detail, specifically addressing each of the award criteria set out in the Rules of Contest (see also below) Please, bear in mind there is no character limitation per box (criterion) but remember the overall limit of 30 pages. Please follow the instructions indicated above.

Award criterion 1, Experimenting – *innovative concepts, processes, tools, and governance models proving the city's commitment to act as a test-bed for innovative practices, while ensuring the mainstreaming of these practices into the ordinary urban development process. In this criterion, among others, the applicant should consider answering these questions: Why are these initiatives and/or concepts perceived as new? In which sense are they different to others? What was the city's role in these innovative concepts and/or models? What impact did they have in the city and ecosystem' stakeholders?*

A thousand years of innovation

Linköping is Sweden's fifth largest city and is growing rapidly. About 166,700 residents call Linköping home and we expect that number to reach 250,000 by 2065. Over the last decade, the number of residents has increased by almost 20,000, which makes Linköping one of the fastest growing cities in Sweden – and there are no signs of slowing down. Linköping is a city where residents can work and play close to home – with career opportunities at world-leading companies within a 15-minute commute by bicycle. Linköping is a city with an eye on the future. A city where world-leading research and ground-breaking innovations are creating a better future, where the university, the municipality, civil society and the business community work together to make innovative ideas a reality. The City of Linköping works tirelessly to increase the quality of life for city residents. Knowledge, entrepreneurial spirit and ground-breaking innovation have been the hallmarks of Linköping's history since the 12th century. Back in the 1960s, the foundation was laid for what is today Linköping University. From its inception, the university has worked to promote the renewal of education and research through interdisciplinary, problem-based learning. Today, the university has 37,600 students and 4,300 employees across four campuses and plays a central role in Linköping's development. The municipality and the university work to improve Linköping through a strategic cooperation agreement.




The City of Linköping's promise – Where ideas come to life

Since 2001, the municipality has carried out its work according to its promise that Linköping is a place "where ideas come to life", which means that we strive to create environments where people can thrive, grow and bring their ideas to life. In order to live up to this promise, we all must work together towards a common goal. The municipality's policy programmes in economic development, climate and energy, digital transformation and the labour market will be a key factor in meeting the challenges ahead. These programmes are the embodiment of the municipality's ambitions and vision for the community, steering the city towards the common goal of a sustainable future and community.

Societal Challenges

 **Climate change**
 **Urban planning**
 **Segregation**

 **A safe, life-friendly city**
 **Ageing population**

Just like any other city, Linköping faces a number of societal challenges. Meeting these challenges will take courage and innovative thinking in a close collaboration between the public sector, academia, the business community and civil society. The municipal management has identified nine priority target areas for strategic development that are the key to achieving the overall objectives for the municipality during the 2024-2029 budget period. In this application, we highlight five of the biggest challenges that Linköping needs to address. The specific areas and success stories we present here are each connected in one way or another to the identified challenges.



The Twin Transition – Green and Digital

The City of Linköping strives to be a leader in climate change solutions. Already in 2012, the Municipal Council adopted the goal that the municipality will be carbon neutral by 2025. The goal is a high priority within the entire municipality and has broad political support. Between 2009-2020, net emissions per resident decreased by 35 percent. During the same period, the total population increased by approximately 20,000 people. We will not quite reach the ambitious goal of carbon neutrality by 2025, but since we set such a high bar from an early stage, we have made tremendous progress and are better positioned to continue our climate work.

Transition requires collaboration. In 2018, the City of Linköping therefore introduced the local network Linköpingsinitiativet (the Linköping Initiative). The network currently consists of 18 private and public member organizations, which represent the largest energy consumers in the local area. Members of the network have taken on challenges related to energy, material flows, transport and travel. Since 2021, the City of Linköping has been part of the national initiative Climate Neutral Cities 2030 – Viable Cities. By participating in Climate Neutral Cities 2030 – Viable Cities, Linköping is teaming up with 22 other cities in Sweden to create the climate-neutral cities of the future with a good quality of life for residents, while respecting the planet’s limits. In order to accelerate this green transition, we need a connected, digital city where we can generate, gather and process large amounts of data. Linköping therefore applies a *digital first* principle in all we do.

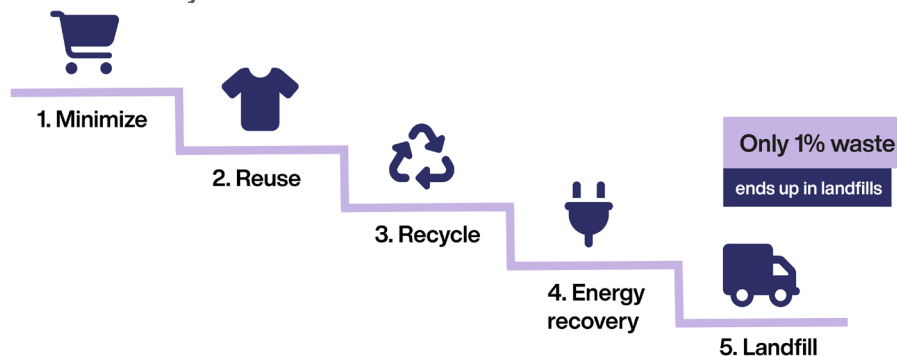
The world's most resource-efficient region



Tekniska verken is a municipally-owned company specializing in providing various essential services such as energy, water, waste management, and district heating. In Linköping Tekniska verken has developed one of the world's most resource-efficient energy systems. This system relies on resources that would

otherwise be lost, thus turning waste into an asset. Maximum efficiency must be the guiding principle in our use of resources so that as little as possible goes to waste. The ultimate goal is zero waste, where “waste” is actually seen as a commodity in a circular economy designed to keep products, components and materials in circulation, thus creating the highest possible value. We strive to try to use waste as efficiently as possible and move up the waste hierarchy to prevent waste in the first place. When waste does arise, reuse/recycling becomes the priority in order to create the highest possible value from the resources. Waste that cannot be reused/recycled moves on to energy recovery and ultimately disposal, landfill. Today, only one percent of all waste that goes through Tekniska verken ends up in a landfill.

The Waste Hierarchy



In the circular economy, resource efficiency and environmental benefits go hand in hand with benefits for business. Resource-efficient waste management relies on recycled goods centres (re-use), food waste collection and material recycling. This may involve receiving waste at recycling centres and offering even collection services for business customers. Linköping is investing in a new sorting plant that will allow us to more efficiently sort plastic, metal, paper and organic material in the household waste we receive. The plant will have the capacity to reduce CO₂ emissions by 77,000 tonnes per year, which corresponds to the total emissions from approximately 11,000 Swedish households.

Biogas and biofertilizer from food waste

Linköping is a biogas pioneer – for more than 20 years, we have been producing fossil-free, renewable biogas. Tekniska verken has played a significant role in building up Sweden's biogas production. The municipally owned company was an early investor in research and the development of processes for biogas technology. FoU Biogas performs laboratory tests, process improvements, substrate investigations, production strategies and gas quality measurements. In 2022, Tekniska verken collected 53,100 tonnes of food waste, which corresponds to 4,000,000 kg of compressed biogas. That amount of biogas is enough to power 333 city buses for an entire year.

- **Biogas Solutions Research Center, Linköping University**

BSRC is a competence centre for biogas research that was established at the end of 2012. BSRC aims to strengthen biogas development through a strong collaboration between universities, companies, and organisations. The Biogas Solutions Research Center (BSRC) takes a transdisciplinary approach to create new knowledge by gathering many different disciplines, researchers, and practitioners under a single umbrella. The centre focuses on delivering knowledge and competence, as well as promoting international exchange and in-depth collaboration between scientific disciplines and practitioners. BSRC also works to develop new solutions and analyses for the benefit of actors along the value chain, the biogas sector and society at large.

- **Coordinated distribution of goods with renewable fuels**

Since 2017, the City of Linköping has applied coordination strategies for the distribution of food to preschools, schools and residential homes. This means that all goods ordered by the municipality are delivered to a central location. Goods are then reloaded and sent out to the municipality's different operations according to established routes. Around 30 suppliers deliver goods to a distribution centre – the goods are then dispatched to around 500 recipients in the City of Linköping. Goods here refers to everything from office supplies and cleaning supplies to food products. For food alone, this amounts to 20,000 deliveries and approximately 5,300 tonnes of goods per year. Our coordinated distribution arrangement, which uses vehicles powered by renewable fuels, not only reduces our climate impact through more efficient transports (and thus fewer transports), it also creates a safer traffic environment for our operations and makes it easier for small and medium-sized enterprises to participate in the procurement of transport assignments.

- **Sustainability Hierarchy of Furniture (Möbeltrappan) and Furniture Service (Möbelservice)**

Möbelservice is a new municipal activity that was started with a decision that all furniture purchases must

be made according to a “staircase” approach (Möbeltrappan). This means that the top priority is the reconditioning and reuse of existing furniture, rather than purchasing new furniture. Möbelservice plays an important role in this circular approach. All of the municipality’s furniture goes through Möbelservice before it is placed in new offices or in new businesses. Möbelservice is also an important part of the municipality's labour market service. The labour market service offers development opportunities and various forms of employment to individuals who need work. The goal is for employees to develop skills in order to achieve self-sufficiency. To provide just one example of Möbeltrappan's success – 62 percent of the furniture in the municipality's new office in the Ebbepark district is recycled.

- **Tekniska verken Innovation Camp**

Since 2012, Tekniska verken and the non-profit organization Ung Företagsamhet in Östergötland (Junior Achievement Sweden – Östergötland) has arranged Tekniska verken Innovation Camp. The camp is an annual innovation competition with a focus on new sustainability solutions. About 80 students aged 16-19 have 20 hours to come up with the best solution to a sustainability challenge presented by Tekniska verken. Participants are divided into groups of 3-5 people from different schools and different education programmes. Coaches from Ung Företagsamhet and experts from Tekniska verken are available to help participants. The competition goes through three phases. At the end, all groups present their solution to a jury that then selects a winner. Tekniska verken owns the rights to the solution and the objective is to implement the winning concept. Tekniska verken Innovation Camp aims to promote creativity among the younger generation in order to contribute to a more sustainable world.

- **The Best of Worlds (Bästa världen)**

Bästa världen is an education programme in sustainability that reaches thousands of students in Linköping each year. All schools in the municipality can register students in grades 2, 5 and 8. The aim is for students to learn about the interconnectedness of the world – from the local level to the global level – and discover what they can do to contribute to a more sustainable world. Bästa världen is a collaboration between the City of Linköping, Tekniska verken, Kolmården Zoo, Lejonfastigheter and the electricity company Bixa. The curriculum for each grade covers a specific theme, where students have the opportunity to learn in a fun and engaging way. The students first explore the local perspective in Linköping, followed by a visit to the Kolmården Zoo to focus on global perspectives. Students then explore what they can do as individuals to contribute to a more sustainable world. The theme for grade 2 is water, for grade 5, it is waste and for grade 8, it is energy. When Bästa världen was first offered in the autumn of 2018, it reached approximately 2,000 students. In 2021, approximately 5,500 students were enrolled and in 2022, all schools in Linköping participated in Bästa världen.

A connected city

One of the City of Linköping's priority areas for strategic development focuses on the opportunities offered by the digital transformation. To this end, the “digital first” principle is laid out in the city's governing strategic document, Program for Digital Transformation. Linköping actively invests in IoT technologies and smart solutions in order to accelerate the green transition, to improve the city's infrastructure and enhance the quality of life for the city's residents by data-driven services.

- **LoRa network and the unique IoT platform, Horisont**

In 2016, planning was initiated to establish the LoRa network in the city, and the network was operational and ready for use in 2017. It now covers the entire city, enabling long-distance communication with low power consumption, thus enabling IoT devices to collect data. The network is used to monitor and develop our smart city solutions; for example, lighting, parking and waste management, as well as to monitor water and energy consumption, air quality and other infrastructure. Utsikt Bredband (a subsidiary of Tekniska verken) operates the city's LoRa network and has developed the unique IoT platform Horisont, which can manage, analyse and visualize collected data.

- **Pilot project for data-driven winter road maintenance monitoring and follow-up**

The pilot project, which is a collaboration between the City of Linköping and NIRA Dynamics, is a great example of innovative development in cooperation with third parties. NIRA Dynamics, which is based in Linköping, is a world leader in the research and development of signal processing and control systems for the vehicle industry. The City of Linköping is partnering with NIRA Dynamics to develop innovative, efficient data-driven approaches for monitoring of winter road maintenance on municipal roads. NIRA Dynamics' indirect tire pressure monitoring system collects data that is shared with the municipality. This data enables the municipality to monitor current and historical data on the status of the municipal roads. This can then be applied to follow up and optimize ploughing and salting activities in cooperation with the city's winter road maintenance contractors. The pilot project was conducted during the winter of 2022/2023, and relied on automatic analysis, where the data from NIRA Dynamics was analysed against the activities entered by the municipality via GPS monitoring of the city's contractors.

A sustainable growing city

Linköping is a city that is growing to meet the needs of the future – and to create a better future. Linköping is at the forefront of sustainable, innovative urban development and contributes to the development of future communities. This effort includes multiple domains and a wide range of different stakeholders. The East Link high-speed rail project will be built through Linköping, and the city is therefore facing one of the biggest changes in its history. When the trains start rolling in 2035, it will be through an expanded central city district and city centre that have been developed together with the residents, academia and the business community. Below, we highlight some of the major innovative building projects that have been completed or are underway in Linköping that have contributed to developing the built environment that characterises this modern Swedish community.

- **Vallastaden – a Model for Sustainable Planning of Cities and Districts**



In September of 2017, Sweden's largest housing expo came to Vallastaden. At the time the expo was held in 2017, the first stage of Vallastaden had just been completed. Today, new residents have moved in to Vallastaden and the district continues to grow and develop. When Vallastaden is completed, it will contain around 4,000 new homes. The district has been developed in a collaboration between the City of Linköping, Linköping University, architectural firms, the business community and a large number of devoted Linköping residents. The vision is to create a varied urban living environment centred around the residents. Over a period of five years, the first 1,000 homes were built by 40 different actors. This is a national record, both in terms of speed and diversity. By dividing the district into smaller parts, a wider variety of actors were able to build homes. Each block contains a mix of detached and terraced houses, and apartment buildings with different tenancy forms: ownership rights, tenant-owner rights and tenancy rights. Vallastaden is a test-bed for small-scale built environments, where we have taken an innovative approach through land allocation competitions to bring in knowledge and ensure quality development – block by block. This also has a tremendous impact on how buildings age over the years, as well as how renovations and additions will be performed and, ultimately, replacement. Prior to the planning of Vallastaden, citizen dialogues were held. Vallastaden continues to take shape and a new conceptual program has been developed through a decision in February 2023. Vallastaden continues to teach us how to create a liveable, sustainable district, with mobility solutions that eliminate the need for car ownership. Since Expo 2017, Vallastaden has been frequently visited by other municipalities and other actors who create the built environment. Over 1,500 visitors a year from within Sweden and across the globe come to Vallastaden to benefit from the lessons we have learned and our experiences.

- **Infrakulvert™ – the sustainable infrastructure of the future**

As more and more people are moving to urban centres, constructing new city districts is becoming all the more common. Water, sewerage, heat, power cables, broadband and waste handling are essential parts of the pipeline network, and smart solutions facilitate operation and maintenance. Traditional solutions require extensive excavation during construction and renovation. This is both costly and causes major disruptions to the local community, traffic and the environment. Infrakulvert is a smart alternative that addresses a number of critical challenges in new construction or renewal projects. With this system, all pipework and lines can be collected in a single underground culvert system. The municipal company Tekniska verken developed this innovative solution during the development phase of Vallastaden district. The resulting unique culvert system creates new opportunities for modern infrastructure. Infrakulvert enables all pipes and lines for electricity, fibre, district heating, sewage, water and refuse to be gathered in

a large culvert with a diameter of 2.5 metres. The only thing that remains outside the culvert is the stormwater pipe system. It is an innovative, prefabricated solution that can be installed quickly and efficiently, while helping to reduce operation and maintenance costs for years to come. There is currently an 1,800-meter Infrakulvert under Vallastaden.

- **Ebbepark – A model for the sustainable central city district of tomorrow**



The Ebbepark district is a model for the central city district of the future, planned and built for smart living and sustainable growth, where residents and businesses have a unique opportunity to thrive and grow together. Ebbepark is a dynamic environment that allows business concepts, innovation and entrepreneurship to flourish. Housing, services and everything else you need to enjoy life is close at hand. Ground breaking was in October 2017, and the development of the district continues today. Sustainability is and has been a hallmark of the project. This includes new strategies to increase recycling, smart energy solutions, stormwater management, green spaces, charging stations and much more. Ebbepark is home to many innovative solutions which, taken together, help make the district a unique, sustainable community. The entire district has been developed according to a sustainability programme that emphasises sustainable transport and the circular economy. For example, during the construction process, all construction vehicles were fuelled with fossil-free diesel via a mobile HVO tank. Ebbepark is not just a district, it is a Testbed and an inclusive community. The municipal real estate company Sankt Kors is responsible for the Testbed and the Ebbepark community. Here people come together to exchange ideas and experiences, share gadgets, vehicles and premises, build relationships and networks and turn challenges into opportunity – for the benefit of residents and society.



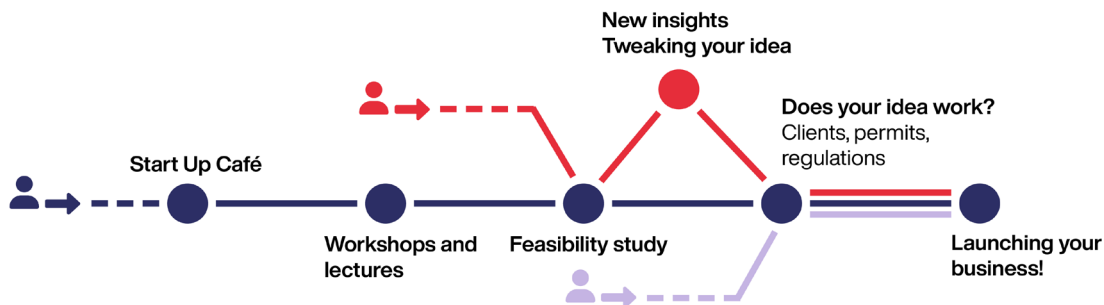
A Segregated City

Linköping is one of Sweden's most segregated cities and there are stark differences between the different districts. We therefore need to find a new, innovative approach to reduce the disparity in living conditions for our residents, not least to reduce spatial segregation, which has negative effects for both society and the individual. The three districts of Berga, Ryd and Skäggetorp have a high proportion of residents with lower socio-economic status and other challenges. Many live lives that are largely isolated from other socio-economic groups in Linköping. In order to counteract this trend and create more equal conditions across all city districts, special interventions are needed along with broad collaboration that includes a cross-sector approach. Since January 2020, Linköping has been working according to a new model for management and coordination of interventions to end segregation, as well as safety enhancement and crime prevention measures.

A just transition

If we are to ensure a just transition to a more sustainable future, we must also ensure that no one is left behind and that all members of society can benefit from the opportunities the future holds. Below we present a few examples where we have introduced or tested new methods and concepts to create a more cohesive and equitable city.

• **Startup Time**



Startup Time was introduced in 2021. It is a new, long-term initiative that aims to enable more people born outside Sweden to start viable businesses. Startup Time is intended for people with a foreign background, who have the entrepreneurial spirit but need a little extra help and financial support to get a business up and running. The Startup Time collaboration includes targeted activities and initiatives for the city’s residents, mainly in the Skäggetorp, Berga and Ryd districts. The project is a collaboration between the non-profit organization Nyföretagarcentrum Mellersta Östergötland (Jobs and Society) and Linköping Municipality, with funding from both Linköping Municipality and private partners. The target group for Startup Time is quite diverse, including individuals with different backgrounds, languages, cultures and customs. In 2022, 140 different individuals participated in one or more “Startup Café” events. From 2023-2026, Startup Time will be a part of the Interreg Europe Milestone project, which will provide a platform for Linköping to disseminate and share the Startup Time model.

• **Inclusive gathering places**

Berga By in the Berga district is a gathering place that was designed based on the needs of the district’s residents. Citizens dialogue were held between residents, the municipality and other stakeholders in the district, resulting in the creation of a unique arena. Here, residents can access public services, a library, cultural activities and youth activities. Berga has been identified as one of the municipality’s vulnerable areas, and Berga By is an important arena for the municipality’s effort to counter segregation. Most importantly, Berga By is a space where citizens, public actors and civil society can come together to find common ground and prevent segregation and the problems it brings. The Agora cultural centre in Skäggetorp is the counterpart to Berga By, in the Skäggetorp district. Here, residents of all ages can gather to share in the joy of art and culture in a safe space. Agora offers access to cultural activities, youth activities, a library, meeting rooms, studios, and music studio all under one roof. The building will also serve as a hub for initiatives from associations active in the district and will help bridge the divide between Skäggetorp and other parts of Linköping. The main purpose of these gathering places is to create better conditions for residents to enjoy more meaningful leisure activities. Both gathering places are being developed further in a cooperation between residents, associations and the City of Linköping. Ung Puls - an activity for the city’s young residents, is a good example. Linköping was one of the first cities in Sweden to offer open, activity-based leisure activities for young people between the ages of 13 and 25. Activity-based leisure means that the activities are based on the young person’s own ideas and commitment, and support and structures are provided to go from idea to action. Berga By and Agora are two central arenas for Ung Puls.

• **LinkStep**

LinkStep is a link between job seekers and the business community. The target group is unemployed residents who are between 20 and 60 years of age. Based on the unique challenges and needs of the individual, LinkStep outlines different paths to employment and can match participants with the right skills to a need in the labour market. LinkStep offers activities such as coaching, lectures, workshops and recruitment meetings. Working according to the individual’s own motivation and life situation, creating a link between potential employees, companies and employers, LinkStep helps reduce labour market exclusion, and since it was started in the autumn of 2018, it has helped 227 people achieve self-sufficiency. LinkStep, which has been run by the municipal housing company Stångåstaden since 2019, operate through funding from the municipality and the European Social Fund (ESF).



An Ageing Population

In the coming decades, the number of people in need of welfare services is expected to increase faster

than the working age population. This means that more people will need access to healthcare and social care. Forecasts show that the share of Sweden's population over 80 will increase by 40 percent in ten years – and the competence supply is already stretched thin. Given this, it is particularly important to help people maintain good health well into old age, but also to ensure that working age residents who are outside the labour market continue to pursue education and employment. The Ageing and Social Change, research environment at Linköping University conducts research on key social, political and cultural aspects of ageing. In order to meet the healthcare and social care needs of the future, Linköping has initiated changes throughout the entire care chain, partly in the form of local care and through a new model for the procurement and delivery of elder care. Linköping is at the forefront in terms of adapting working methods and utilising the safety-enhancing technology that is needed to meet the growing needs in healthcare and social care. Below are a few examples:

- **Evikomp**

Evikomp is a model for competence development for personnel in healthcare and social care that relies on workplace learning, aiming to simultaneously increase the learning of individuals, groups and organizations. Evikomp was developed and operated with EU support (European Social Fund) from 2018-2022. The first participants were all 13 municipalities in Östergötland and Region Östergötland. The partnership was then expanded to include several other municipalities in Sweden, with the City of Linköping being the project owner. Starting in 2023, Evikomp is a model for competence development that is financed by all municipalities in the county and Region Östergötland. The City of Linköping is the principal. Evikomp has about 13,000 users and covers nearly 600 workplaces.

- **Safety-enhancing technology and adapted working methods in elder care**

In 2022, the City of Linköping tested safety-enhancing technology at two nursing homes. When used together with adapted working methods, the technology can help staff identify immediate needs for support and assistance, by sounding the alarm if anything deviates from a patient's everyday pattern, regardless of the time of day. The pilot is now moving into the implementation phase, and a procurement will be carried out to introduce safety-enhancing technology in all nursing homes in the municipality. During the pilot project, culture, structure and capability have been built and the legal framework has been challenged. The next step is the widespread introduction over two years in over 40 nursing homes, which is unique for this kind of technology. The aim is to create benefits for the individual by using safety-enhancing technology that immediately alerts care providers if an individual is in need of support and assistance. The aim is also to strengthen the individual's integrity and create conditions where staff can concentrate their efforts where they are needed most.

- **Safe and secure at home (Tryggt och enkelt hemma)**

In collaboration with the housing company Stångåstaden, Utsikt Bredband, Kinda Municipality and the research institute RISE, the City of Linköping introduced a project that aims to increase the opportunities for elderly residents to remain in their own homes and live an independent and healthy life, well into old age. This can delay or reduce the need for healthcare and social care. The project was implemented from 2021-2022 and was based on the needs of the target group. Meetings have been held with Linköping residents aged 70 and over, where dialogue and personal stories provided insight into their problems and needs. A market dialogue was initiated where 130 companies were contacted, which resulted in the selection of nine IoT solutions. Two demonstration apartments were created to test and evaluate the technology. The common thread between all solutions was that existing technology would be targeted and adapted to a new target group. The project has entered the next phase and a test group of around 100 Linköping residents is now being offered a packaged safety solution. Safe and secure at home is a proactive and completely new approach. The RISE research institute is carrying out an SROI analysis on behalf of the City of Linköping, which will be completed in Q3 2023.

Award criterion 2, Escalating – *accelerating the growth of highly innovative start-ups and SMEs by establishing an innovation friendly legal framework, creating an environment that stimulates growth, private and public investments, resources, diversity, and talents; and driving innovation demand through efficient innovation public procurement. In this criterion, among others, the applicant should consider providing information about concrete actions taken to pursue the growth of highly innovative start-ups and SMEs, as well as their quantitative and qualitative implications and/or impact about actions to promote the use of innovation procurement, or about actions aimed to promote investments and growth within the city. The city is expected to provide details on concrete results of the showcased initiatives.*

The Silicon Valley of Sweden

Sharp minds in an innovative business sector and public sector

Linköping's business community, public institutions, and, of course, our university, have a long history of innovative thinking, which has created a distinct, dynamic culture. Linköping is a world leader in aeronautical engineering, vehicle safety, the Internet of Things (IoT), mobile communication, AI and image analysis. We are also at the forefront of technology for sustainable, climate-friendly solutions. Linköping is

home to global heavyweights such as SAAB and Ericsson and many other high-tech companies that have grown into world leaders: Sectra, IFS and NIRA Dynamics to name a few. Given our status as a hub of technology, clusters develop that broaden the international reach of our business community, creating an environment where new companies can emerge and flourish. In Linköping, we also take pride in our public sector. As a county capital city, we are home to the County Administrative Board with all of the activities it conducts, the Swedish National Forensic Centre, the Swedish National Road and Transport Research Institute, the Swedish Defence Research Agency, Östgöta Air Force Wing – F3, and the District Court, just to name a few.

[Film - The groundbreaking Innovations](#)

The city takes an active role

The City of Linköping takes a leading role in promoting innovation and development in Östergötland. The guiding principle is to create the conditions for innovation and development to thrive. Every year, the city invests approximately SEK 20 million to promote entrepreneurship, new enterprise and innovation and development. The city is the driving force behind strategic, long-term initiatives that we carry out together with our strategic partners. The municipally owned company Linköping Science Park plays a central role in this effort. In 2021, we adopted our strategy for development environments. In order to take a long-term view and assess where the city can and should invest its time and financial resources, a strategic approach was needed that would define the city's role in the innovation support system. We have therefore partnered with Linköping University to develop a common strategic approach to development environments. The main role of the city in the innovation support system is to enable innovation and development by providing long-term financing for the basic infrastructure. Here, basic infrastructure refers to support for commercialisation, growth, development and transition. The goal is for the city's investments to be effective and meaningful over the long term, while addressing identified needs in society and business.

Innovation-friendly procurement

On average, the City of Linköping purchases goods and services totalling around SEK 4 billion every year. Through strategic thinking in the procurement and purchasing process, Linköping promotes sustainable community development and contributes to the more efficient use of our common resources. To this end, we have adopted a procurement and purchasing policy that includes value-based approaches. The city strives to ensure that its procurement process promotes development and innovation, which can also benefit the broader market. This approach may introduce brand new solutions, as well as existing solutions that we have yet to put into practice. Several pilots and full-scale projects have been implemented based on this policy. Projects that stand out include the safety-enhancing technology and adapted working methods in elder care as described above.

A world-leading university

Linköping University's vision – With the courage to think freely and innovate – indicates that Linköping University takes on the challenges of today. Innovation is Linköping University's only tradition. Since becoming Sweden's sixth university in 1975, LiU has conducted world-leading research and boundary-crossing education in close and productive collaboration with society and industry. For almost five decades, the university has guided curious, innovative students towards influential roles and successful careers, while researchers have investigated the world around us and published ground-breaking findings about its complex nature and functions. For several years, Linköping University has been among the top 2 percent in the three most important international university rankings. With 37,600 students and 4,300 employees, the university is organized in 4 faculties and 12 departments, with main campuses in Linköping as well as Norrköping. Students who graduate from the university are attractive to employers, and students easily find employment after graduation. With world-leading research in a broad range of areas, most of the research is in the areas of Computer Science, Materials Science, Economics and Business, Medicine and Health, Education, and Social Sciences. To scientifically contribute to the challenges of today and the future, Linköping University forms centres around areas such as AI and visualization, Materials for the future, Mobile communication systems, Climate and Energy, Medical Visualization, Cyber security and Neurosciences, which are also areas that contribute to the innovation ecosystem in the region by developing existing companies and organizations, establishing start-ups and fostering entrepreneurs.

LiU Innovation

One of Linköping University's missions is to apply the research results and knowledge generated at the university. This includes both commercial and non-commercial applications from our researchers, teachers and students. LiU Innovation is Linköping University's hub for innovation and is an important part of the university's operational support. The office helps address societal challenges by putting the knowledge generated at the university into action. All work within LiU Innovation aims to contribute to sustainable

development in line with the 2030 Agenda for Sustainable Development and to increase the impact of research in society. LiU Innovation works with researchers and staff at the university in order to provide support from the early conceptual phase to finished product or service. Innovation advisers, who have strong ties to the innovation system, provide support for those who need assistance starting a company, securing financing and much more.

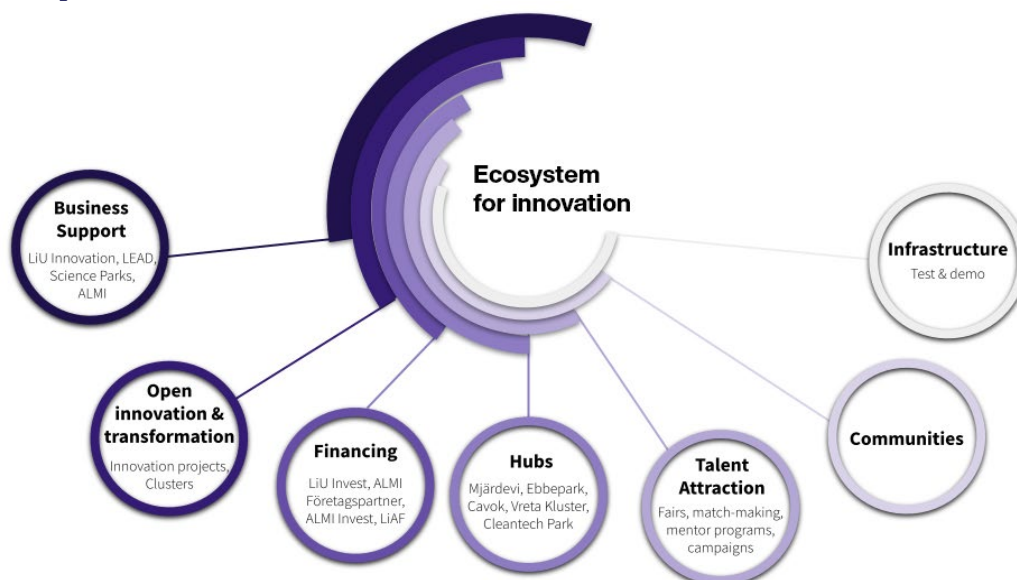
Student Innovation by LiU

Student Innovation by LiU, started in 2020, helps students crystallize their thoughts into viable ideas for new initiatives, companies or projects. By identifying concepts and individuals with the potential to make an impact, Student Innovation by LiU can help them to move further into the region’s innovation support system. In 2022, 255 students contacted Student Innovation by LiU, coaching was offered for 80 novel ideas, and several ideas have been handed over to other actors in the innovation support system.

LiU Holding AB

Linköping University Holding AB (LiU Holding) is owned by the Swedish government, but managed locally by the university. The aim is to ensure that LiU and the innovation system are seen as active contributors to innovation in society. Operations within the LiU Holding group are conducted within three subsidiaries: the business incubator LEAD, the investment company LiU Invest AB and the consulting company Unitalent AB.

Ecosystem for Innovation



Linköping has an established infrastructure that promotes commercialization, growth, transition and development. We have long invested in our basic infrastructure, as well as niche innovation environments where companies within the same industry can collaborate and create synergies. With strong roots in academia, the business community, the public sector and the surrounding community, LEAD and Linköping Science Park offer a unique opportunity. The structure includes physical innovation environments, business clusters, business development, innovation facilitation and a capacity for action that benefits the rest of the ecosystem.

LEAD

LEAD is one of Sweden’s leading business incubators for tech start-ups. The City of Linköping financially support LEAD and holds a chair in the board. Since its founding in 2007, LEAD has coached over 200 companies, and today it has 78 alumni companies with a combined turnover of SEK 1.6 billion and approximately 1,100 employees. Active primarily within the region’s and the university’s key areas, LEAD primarily aims to assist high-tech, knowledge-intensive companies with high growth potential in order to contribute to meaningful change and societal advancement. Continuously refining its processes to ensure that they are as efficient as possible and adapted to the needs of the companies they support, LEAD enables faster growth and facilitates the transition from idea to a thriving, established company. LEAD offers a comprehensive ecosystem for startups, with business coaching, training opportunities, networking and capital. It fosters a community of startups that share inspiration, collaborate and learn from each other. LEAD assists startups in different phases of development – from the conceptual phase, to the first paying customer and then scaling up. LEAD offers two different memberships.

1) Business Lab is for the earliest phase, where the focus is on formulating the business concept in the form of market validation and customer validation. Business Lab is a pre-incubator where participants can test their business concept for 6 to 12 months. BootUp is an intensive business development programme run by Business Lab, where 10-12 startups are selected to participate. The programme lasts for three months and is offered twice a year. In 2022, Business Lab accepted 21 concepts, 9 of which were selected for BootUp. 2) LEAD Incubate works with tech startups with an innovative B2B product or service that is scalable, difficult to replicate and has high international growth potential. Members join at any time for a 12-36 month period and have access to tailored business coaching and an office space in an active startup community. In 2022, 11 new companies were accepted to LEAD Incubate, and a total of 29 companies were active members of LEAD's incubator programme in 2022.

LEAD's entrepreneurship programme

- **Summer Match**

Summer Match is one of two entrepreneurship programmes offered by LEAD. The programme works with ambitious students with an interest in entrepreneurship to develop and accelerate research ideas from Linköping University into marketable products and services – thus creating new possibilities for researchers' ideas. The students, who are paired with a researcher and receive support from LEAD's business coaches, work full-time to develop a research idea and identify new areas of application. The tasks the students perform vary depending on the research idea and how close the product or service is to reaching market. This unique collaboration between researchers and students leads to new solutions, customer agreements and the creation of new companies. It is a one-of-a-kind summer job where students establish a valuable network, relevant experience and open the door to future career opportunities. Since the programme started in 2007, over 200 students have participated. Several students are currently active and, in some cases, co-owners of the companies created from the research at LiU. In addition, several Summer Match students have gone on to the Entrepreneur in Residence trainee programme.

- **Entrepreneurs In Residence**

LEAD Entrepreneurs in Residence is a unique entrepreneurship programme where trainees have the opportunity to work on high-tech ideas that can serve as the foundation for sustainable companies. Entrepreneurs in Residence is a six-month business development programme that was started in 2018 in order to promote the growth of innovative companies while shaping the leaders of the future. The participants work closely in carefully selected teams of four to six people. Business coaches assist the trainees as they take innovative ideas from academia and businesses in the region and work to develop them further. The students work with ideas that have not yet matured to the point where they can be transformed into startups and products that can be brought to market. The team works to identify and develop business models, evaluate market needs and understand challenges faced by potential customers. Ten of the 27 trainees who have completed the programme are now working in new or very early-stage companies in our region. The trainee programme has also helped increase gender equality in these companies.

Linköping Science Park



LEAD - One of Sweden's top incubators



Visualization & image analysis



Mobile communication



Automotive safety



IPTV & streaming media

When it was founded in 1984, Linköping Science Park became the second science park in Sweden and the first municipally owned science park. Since then, Linköping Science Park has grown into a world-class innovation hotspot. Linköping Science Park is closely connected to Linköping University. Today, Linköping Science Park is home to 600 companies, 14,000 employees and 37,600 students in areas such as vehicle safety, mobile communications, business systems, medical technology, image analysis, IPTV (television distributed over IP networks) and streaming media, as well as IoT (Internet of Things). At the core of this innovative environment is a focus on software development, hardware development, and embedded and connected systems. Linköping Science Park offers access to development programmes and networks and serves as a hub for innovation and research, where companies and talented minds come together. A shared focus on sustainability and the development of strong communities guides the work to develop

companies with a high potential for growth. A perfect example is the project [Commercialization of energy innovations](#). Below we present some of the large-scale initiatives and programmes run from Linköping Science Park which promote growth, transition and development.

Programmes for supporting Business Growth

- **Swedish Scaleups**

[Swedish Scaleups](#) is one of the main programmes run from Linköping Science Park to support knowledge-intensive, scalable companies in the growth phase. The Swedish Scaleups platform was started in 2015 through a large-scale regional collaboration between nine science parks and incubators in East Middle Sweden with funding from the European Regional Development Fund. The City of Linköping has co-funded Swedish Scaleups, while Linköping Science Park has worked to develop and grow the platform. Swedish Scaleups is tailored to fast-growing companies that are well-positioned for scale up and strong growth. [The programme](#) focuses on capital acquisition and internationalization across sectors and is tailored to the needs of individual companies. Companies must meet a number of criteria to participate in the programme, including requirements for innovation level, team dedication, scalable business model, company size and growth potential of at least 20 percent in three years. Since the programme started in 2015, 131 companies from Östergötland have participated. When we look at the number of employees and turnover for the project period 2015-2017 and 2018-2021, Swedish Scaleups helped add 975 employees and increased turnover by SEK 1.6 billion. The goal for 2023-2026 is for 114 companies to complete the programme, 29 of which are based in Östergötland.

- **IndX**

IndX is a collaboration environment that was started in 2020 when [SAAB](#), [Väderstad](#), [Siemens Energy](#) and [Toyota Material Handling](#) joined forces with Linköping Science Park to develop solutions to the problems of the future. [IndX](#) is an open innovation arena where the region's largest industrial-sector companies come together to identify common challenges, which are then matched with potential solutions offered by innovative startups around the globe. IndX offers an arena for startups to develop their products and services in close collaboration with a high-profile customer. They also gain access to relevant business opportunities and an expansive network of potential customers, suppliers and partners. The large industrial companies gain access to new technology, new business models and innovative approaches. During 2022, four pitch days were held with a total of 17 startups participating. Since IndX was launched in 2020, more than 10 pilot projects have been implemented.

Linköping Science Park's competence-driven innovation clusters

- **IoT World**

IoT World is a hub that was established in 2018 with funding from IoT Sverige and Sweden's innovation agency, Vinnova, in order to create IoT solutions for sustainable community development. For example: Tekniska verken has collaborated within IoT World to test new solutions for the optimisation of energy production in networks, and Östgötatrafiken (the regional transport company) has also participated to identify potential optimizations in public transport. In 2021, Linköping Science Park was awarded funding to transform the IoT hub into a cluster. As a result, more companies have joined and [IoT World](#) now has 67 members. Most of them are innovative tech companies, but there are also members from the public sector, benefiting from the solutions, as well as researchers and research institutes. Projects completed within IoT World include [Public Logistics with IoT](#) (OLIoT), where Region Östergötland, the City of Linköping, Kinda Municipality and RISE collaborated to find effective IoT-based solutions in healthcare to tackle the challenge with material supply. The project has now been completed and solutions are currently being evaluated for implementation.

- **Visual Sweden**

[Visual Sweden](#) is a national initiative funded by Vinnova, with co-funding from the City of Linköping, among others. Visual Sweden aims to promote innovation and regional growth in visualization and image analysis. This development arena is run as a research centre at Linköping University and has strong ties to academia and research. It is also firmly anchored in the business community and has close ties to government authorities based in the region, including SMHI (the [Swedish Meteorological and Hydrological Institute](#)), the Swedish National Forensic Centre and [the Swedish Defence Research Agency](#). Linköping is fortunate to have a high concentration of companies in visualization and image analysis, and Linköping Science Park assists in Visual Sweden's operations. The vision is that in 2030, the Linköping-Norrköping metropolitan region will be Europe's most attractive innovation environment for visualization and image analysis. Visual Sweden has over 100 members, and over 60 percent of the member companies are based or have offices right here in Linköping. During 2022, Visual Sweden implemented 23 projects/experiments with actors from academia, the business world and civil society, including [Medical Digital Twin \(MeDigiT\)](#), [Smart Twins for Forest Environment](#) and [Visual LIFT](#)

- **Cyberly**

Since 2020, Linköping Science Park has focused increasingly on cyber security. The first step was a project funded by the Swedish Agency for Economic and Regional Growth, which aimed to increase knowledge and preparedness in the area of security among some of the most advanced technology companies. This project was conducted in close collaboration with Linköping University's [SecurityLink](#) and the [Swedish Defence Research Agency](#). Since then, Linköping Science Park has created a number of training initiatives that target various industries (agriculture, hospitality and tech), as well as other innovation and development environments. The next step in this effort was taken in 2022, when the regional knowledge network and cluster [Cyberly](#) was started. Cyberly aims to strengthen established cyber security companies, but also to increase knowledge and awareness in other vital industries in Östergötland.

- **AI Sweden**

[AI Sweden](#) is a national centre for applied artificial intelligence, aiming to accelerate the use of AI in Sweden. The centre is coordinated by Lindholmen Science Park, with funding from Vinnova, and in order to connect regional AI ecosystems, regional nodes have also been established – one of which is located in Linköping (the East Node). Established in 2020 by founding partners Linköping University, Region Östergötland, the City of Linköping and the [Swedish National Road and Transport Research Institute](#), the East node currently has 13 members and is hosted by Linköping Science Park. AI Sweden has also developed a partner programme that is suitable for large companies, the public sector and startups. One example is the current project [Machine Learning in social services](#). From 2023-2024, the City of Linköping is implementing a learning project with support from Vinnova and AI Sweden in order to develop an AI-assisted forecasting tool to analyse data from the Social welfare department that will increase knowledge about patterns that precede the need for placement of children outside their own homes.

Vreta Kluster

[Vreta Kluster](#) is an innovation and development centre for green industry, open to those working in agriculture, forestry, food, animal husbandry, renewable energy, aquaculture and gardening. Initiated in 2011 as a project to create jobs and to promote development and growth in green industries in Östergötland, Vreta Kluster is today a well-established arena of development in Linköping. Its aim is to identify innovative, smart solutions that will ensure continued access to healthy, nutritious and sustainable food, better animal husbandry, a smarter energy supply and healthy forests. Vreta Kluster strives to be a hub for sustainable, innovative development within the green industries at the local, regional, national and international level. In 2022, the business park was home to 27 companies and organizations, and 31 activities have been arranged. Vreta Kluster has operated and/or participated in 26 development and innovation projects, with Agtech being the largest to date. Vreta Kluster is one of the City of Linköping's go-to partners for local innovation and growth in green industry.

- **Agtech**

Vreta Kluster is part of Linköping University's large-scale initiative [Agtech 2030](#) which, like Visual Sweden, is funded by Vinnova. The Agtech 2030 initiative aims to “create tomorrow’s most eminent region within agricultural technology”, with a focus on sensors, digital technology, AI and IoT. Agtech 2030 aims to enrich innovation within agricultural technology and contribute to a transition that helps meet the UN’s SDGs based on innovative applications of technology and new methods. Here in Östergötland, significant investments have been made in agricultural technology and applied, cutting-edge research in a close collaboration between research institutes, the business sector, and large-scale tech companies. Furthermore, the county is home to high-tech, high-yield agricultural companies that have utilised innovative technology and new business models to help achieve the global sustainability goals. Since Agtech was started in 2019, [35 projects have been implemented and 18 are currently in progress](#).

Smart specialisation strategy

Region Östergötland's [Smart Specialisation Strategy](#) is the guiding principle behind the transformation and renewal process in the business sector and the public sector. The strategy highlights the region's strengths in the area of technology, such as technologies that enable commercialization but above all, transformation and development. One of Östergötland's five identified areas of strength includes a thriving research sector and successful companies. Region Östergötland is also part of a collaboration that includes five regions in East Middle Sweden, who are working together to promote smart, sustainable innovation and growth. Smart specialisation allows us to strategically utilise our collective strengths for the good of our communities. The strategy, which was introduced in 2014, will be updated and further developed in 2024. By providing the base funding for LEAD, Linköping Science Park and Vreta Kluster, the City of Linköping takes a leading role in securing the long-term infrastructure. And through the strategy for smart specialisation, Region Östergötland can, for example, build on this infrastructure and utilise it for niche ventures.

- **Advanced Materials;** Östergötland boasts a high level of competence and resources when it comes to the development of new materials, the use of advanced materials and the development of new manufacturing methods for existing materials. [Innovative Materials Arena \(IMA\)](#) is an innovation cluster that stimulates research, cooperation and growth in advanced materials.
- **Efficient Logistics;** Geographically, Östergötland enjoys one of the best locations in Sweden. To this we can add strong infrastructure and one of the largest infrastructure investments in modern times, the planned East Link high-speed rail project. Östergötland also has a thriving research community and prominent companies in the field of logistics. In order to increase competitiveness and create a centre for cooperation and development, [Östergötland's logistics cluster, Logistikia](#) has been developed.
- **The benefits of an environmentally friendly business;** Östergötland is at the forefront when it comes to the circular economy, environmental technology and resource-efficient solutions such as waste management and biogas. In Östergötland, the business community has worked in collaboration with universities and the public sector to create sustainable solutions that also benefit the bottom line. The business community, public sector and academia come together under the umbrella of [Cleantech Östergötland](#) in order to collectively address society's environmental challenges.
- **Smart, safe and robust connected products and systems,** Internet of Things, sensors and AI. These are just a few areas where the local research community and business community have an exceptional level of competence. In the area of artificial intelligence, world-leading research is conducted at Linköping University and there is a regional [AI node](#). Within IoT, there is the [IoT World platform](#).
- **Visualization, simulation and image analysis;** Östergötland has a long history of world-class research in visualization, simulation and image analysis. Today, the region has access to some of the sharpest minds in complex data visualization. There are currently three research environments in Östergötland within visualization, simulation and image analysis that are world leaders: [the Center for Medical Image Science and Visualization \(CMIV\)](#), [Visualization Center C](#) and the [Computer Vision Laboratory](#)

Talent Attraction

Over the past three years, we have redoubled efforts in Linköping to ensure the long-term retention and recruitment of competence. The competence supply is the biggest obstacle to growth. Over 70,000 qualified workers are needed in Sweden's tech industry by 2024. To address this challenge, we need collaboration and a multifaceted approach. We need to tap into the pool of students and researchers at Linköping University who are about to graduate, and retain and recruit international talent to the region. To achieve this, the City of Linköping, Linköping Science Park and Linköping University are working together with the local business community. Since 2015, Linköping Science Park has adopted a strategic talent attraction and competence supply approach. Additionally, the Science Park also conducts activities aimed at increasing contact between students, researchers and the local labour market. The Science Park is a key platform for talent attraction, particularly tech talent. It arranges annual events, such as job fair, recruitment fair and the Science Pop Up Expo, where university students and researchers rub elbows with members of the local business community. Below we present some of the major initiatives, activities and projects in the area of talent attraction.

- **Brilliant Mentors of the Future – Reversed Mentorship**

In a dialogue between the municipality, representatives from the local business community and Linköping Science Park's shadow board (consisting of university students), the idea to offer a reverse mentorship was born. In this concept, students at Linköping University take on the role of mentor for more senior and experienced individuals in the business community and public sector. The first pilot was developed and implemented in 2021/2022. A second pilot is underway in 2022/2023, and the programme will become permanent in 2023/2024 as a joint offering from the City of Linköping and Linköping Science Park. [Brilliant Mentors of the Future – Reverse Mentorship](#), matches leaders in the business world and public sector with students at Linköping University. A total of 15 mentor/mentee pairs have been matched during each pilot. A [handbook](#) has been produced to facilitate this relationship, along with a joint LinkedIn group and meetings for the mentors. The purpose of the programme is to break down barriers and promote intergenerational learning where the mentees (the leaders) get to share in the students' thoughts about the future and future career options. The mentors (the students) are provided with an opportunity to build up a network and gain greater insight into the career opportunities available in the local job market.

- **Student employment**

The City of Linköping offers [student employee positions](#) in collaboration with Linköping University. As student employees, students have the opportunity to translate theoretical knowledge into practical work

experience while completing their studies. To become a student employee, students must have started the last year of their education programme at the bachelor's or master's level. Student employees are employed by the City of Linköping and working hours are adapted to accommodate their studies (approximately 20-25% of full time over two semesters). Throughout the employment period, the student receives a salary and works with a supervisor. The student employee initiative is a collaboration between LiU and several municipal employers in the region. Positions are posted two times each year, sometimes for specific professions and sometimes more broad in nature.

- **Future Now Meeting (Framtidsträffen)**

Framtidsträffen started as a shared idea to create an arena where Linköping University students with an interest in business and labour market issues could make contact with the regional business community and public sector to build networks and find inspiration for their future careers. Framtidsträffen was created by students at Linköping University and the municipalities of Linköping and Norrköping. Framtidsträffen was ready to kick off in 2019, but due to the pandemic, the first Framtidsträffen meeting was not held until 2022. At that meeting, 110 students and 45 representatives from the business community were in attendance for a combined dinner, networking meeting and seminar. Framtidsträffen aims to increase awareness of what Linköping and Norrköping have to offer with a focus on the labour market and career opportunities for students at Linköping University, as well as to facilitate contact and networking opportunities between students and the local business community. The hope is that over the long term, Framtidsträffen will inspire more students to stay in Linköping and Norrköping after completing their studies. The planning for Framtidsträffen 2023 is now underway.

- **Code Summer Camp**

Code Summer Camp is a summer camp for students between the ages of 7-17. The camp aims to promote interest in technology, programming and digital creation. Participants have the opportunity to try their hand at different programming languages, while working to solve problems collaboratively and creatively. The camp, currently offered for 3 weeks each summer, started in 2015, and has welcomed over 1,400 participants to date. Some 300 participants are offered a place for 2 weeks on site and 1 digital camp week. Code Summer Camp attracts participants from the region and across Sweden (digital week). Code Summer Camp is held in a collaboration between Linköping Science Park, SKILL and Linköping University. In order to achieve gender equality in the tech industry over the long term, the aim is for participants to be 50% girls and 50% boys. In 2022, the numbers were 34% girls and 66% boys, which was a step in the right direction. Scholarships are offered in order to ensure that all children have the opportunity to participate in the camp, regardless of socio-economic conditions. Evaluations show that participants truly appreciate the opportunity offered by Code Summer Camp. In 2022, the camp received an average overall rating of 4.6/5 in the final evaluation. The same survey shows that the participants' interest in programming increases as a direct result of the camp.

- **Switch to Sweden**

Linköping Science Park has a mission to facilitate efforts to match more qualified international talent to Swedish employers. The programme Switch to Sweden runs between 2022-2024 and is funded by Vinnova. The program aims to build a conceptual framework around competence supply in order to entice more international students and researchers to stay in Sweden after completing their second-cycle and third cycle studies, an area where Sweden needs to do better. The project has mapped the target group (international master's students in Sweden) and the business community's capacity to receive international competence. An AI matchmaking tool has been developed. So far, the tool has been used for 425 candidates and 235 potential companies, resulting in 125 matches. Of these, about half have proceeded to in-person meetings.

Award criterion 3, Ecosystem building – *unlocking the city's potential as local innovation ecosystem facilitator by fostering synergies among different innovation ecosystem players, from public, industry, startups, civil society, citizens to academia, to contribute to the development of an innovation ecosystem within the city. In this criterion, among others, the applicant should consider providing information about the role of the city on boosting the city's innovation ecosystem: e.g., is the city a key actor in these interactions? The applicant is expected to provide details on concrete results of the showcased initiatives.*

Collaboration is in Linköping's DNA

In an increasingly complex world, we need to find strength together. Collaboration is deeply rooted in Linköping's DNA. We are known for frequent and close collaboration between the public sector, business community, academia and civil society. This creates the best conditions for growth and transition across a number of dimensions. Linköping is the largest city in the region and the driving force behind the transition to a greener, digital and more equitable future. In collaboration with Region Östergötland and the neighbouring municipality of Norrköping, Linköping is the engine that ensures access to a functioning innovation support system that promotes the formation of new companies and the development of existing companies, while creating a bridge between the public sector, academia and civil society. Linköping is part of East Sweden Business Region, a regional network that serves as a platform for all actors in the region

in order to promote entrepreneurship, new business and innovation. The City of Linköping's innovation company [Linköping Science Park](#) has consistently worked according to the quadruple helix model and is firmly rooted at the intersection between the public sector, business community, academia and civil society. Here in Linköping, we often talk about "the Linköping spirit". It is a culture and mindset about sharing and the belief that we are stronger together. Fuelled by the Linköping spirit, we join forces to create platforms and ecosystems for cooperation.

Innovative service development with third parties

In order to meet the challenges of modern society, the City of Linköping works to promote innovative service development with third parties. The aim is to work with small and medium-sized companies to develop the welfare services of the future while creating a platform and testbed for these companies to develop their services, products and business models. The city's purchasing and procurement activities are a key part of this work. The city is the customer in this arrangement and benefits from links to innovative solutions from the business world. One example is [IGNITE Public](#), which is a national model to match needs in the public sector with hand-picked, innovative startup companies.

Strategy for cooperation with the voluntary sector

Linköping is home to a thriving voluntary sector, including sports associations, pensioners' associations and e-sports associations, as well as societies/associations that focus on social issues, persons with disabilities and environmental issues. The associations vary in size, but they are all basically run the same way: with non-profit engagement and a lot of heart. Linköping's thriving civil society is one of the city's strengths. The active voluntary sector provides unique opportunities and a wider range of options for residents in terms of knowledge, self-confidence and influence. In Linköping, we are committed to promoting the voluntary sector. Since 2012, we have adopted a [strategy for collaboration with the voluntary sector](#) and a [cooperation agreement between civil society and the city](#). The strategy aims to highlight the ambition, the will and the path forward for a thriving collaboration between the city and the voluntary sector. The cooperation agreement strengthens the ties between the city and voluntary sector in order to promote democratic ideals and revitalization that enables voluntary organizations to play an important role in the city's welfare efforts. The City of Linköping cooperates with civil society in many different ways within the city's committees and administrative bodies. The city distributes association grants and engages in other forms of cooperation. The number of Idea based public partnership (IPPs) has increased from 17 in 2019 to 20 at the beginning of 2022. A IPP is a form of cooperation agreement between the public sector and private (voluntary) sector that aims to create a public benefit and solve a societal problem by working together.

Challenge-driven Ecosystems

In Linköping, we have built platforms (ecosystems) to meet prioritized societal challenges. What these ecosystems have in common is that they focus on an identified challenge and are based on cooperation between multiple actors across several different sectors. In order for Linköping to increase the pace of the transition to a greener, digital, more equitable future, everyone must be on board. In order to manage such a monumental change, we will need to tap into established collaborations and form new collaborations between civil society, citizens, the business community, policy makers and civil servants.



Climate and environment in a growing city

Climate-neutral Linköping 2030

Since October 2021, Linköping has been added to the list of 23 cities participating in the national project [Climate Neutral Cities 2030 run by Viable Cities](#), which is one of Sweden's 17 strategic innovation programmes. As member of Climate Neutral Cities 2030, the City of Linköping has undertaken to test new working methods and solutions, to share knowledge and to work to achieve the mission of Viable Cities: to create "cities that work well for the people who live in them, that are good for the economy of citizens, businesses and society - and - that are good for the climate and our planet". In the project, the City of Linköping is working together with Linköping University, [RISE](#), Linköping Science Park, [Sankt Kors](#) and [Campushallen](#). Priority areas are (1) Housing, premises and operations, (2) Construction and (3) Mobility and transport. The first step has been to establish the [Climate City Contract 2030](#). This will be done every year, which ensures that the contract is firmly anchored with policy makers. It also outlines the initiatives that the City of Linköping intends to implement.

- **Testbed vouchers**

Within the framework of Climate-neutral Linköping 2030, the City of Linköping is offering small and medium-sized companies the opportunity to apply for testbed vouchers. The purpose of the testbed

vouchers is to promote innovation and development by offering financial support to companies, organizations and researchers who work to develop innovative solutions and technologies that accelerate the green digital transition. Seven testbed vouchers have been handed out since the start in 2022; one example is the company Devair, which is testing a product that improves indoor air quality with new technology.

Testbed Ebbepark

Testbed Ebbepark is a unique and open testbed in the Ebbepark district of Linköping that provides developers, innovators and companies with an opportunity to test and develop products and services in order to accelerate the transition to sustainable development in line with the 2030 Agenda for Sustainable Development. Social sustainability is an important focus area, along with the assurance of security, community and equality for all groups who reside in or visit the district. The development of the testbed kicked off in October 2017, and the plan is to continue for 100 years.

- **Testing a mobile HVO tank, Filln'Go, a solution for fossil-free fuel**

During the first phase of construction, the first test was performed in Testbädd Ebbepark by placing an HVO filling station inside the construction site. The contractors inside the construction site could refill with fossil-free diesel through a shared tank on the site. The tests were carried out by a broad collaboration within the testbed. The test phase has been transformed into a new business concept by Energifabriken, which has started a subsidiary called Filln'Go. During the first six months of the test period, construction vehicles refuelled with 27,671 litres of fossil-free HVO diesel, which corresponds to a reduction in CO₂ emissions of 79,139 kilograms. This corresponds to the annual climate impact of 15 Swedish residents. More tests carried out in the testbed:

- Det effektiva geolagret (Geothermal energy storage)
- Sensors powered by indoor lighting
- IoT forensics recreates the sequence of events in crime scene investigations

The Linköping Initiative

The Linköping Initiative is a local network of private and public actors working together to achieve a carbon neutral Linköping. The network serves as a platform for learning and experience exchange where members join forces on local and global climate issues in order to accelerate the transition to a sustainable society. The network was started in 2018 with nine original members. Today, 18 members, including organisations from both the public and private sectors, are participating within the current agreement period 2022-2025. Participating organisations sign an agreement which binds the organisation to clearly defined energy and climate goals, with timeframes, and they carry out activities to achieve these goals. Participating organisations are also required to annually measure and follow up on these goals, and to participate in the network's activities and meetings. An annual report is drawn up each year to summarize implemented activities and results. Linköping's total CO₂ emissions have decreased by 11 percent since the network was started, and the Linköping Initiative has made a significant contribution to this change. The members of the Linköping Initiative have highlighted the importance of the network for competitive intelligence and report that the network is valuable as a tool to reach other companies in completely different industries for the exchange of experience and knowledge.

City Centre of the Future (Framtidens Stads kärna)



In order to promote innovation, quality and cooperation for a life-friendly city centre, the construction of the platform Framtidens Stads kärna was started in 2021. As Linköping continues to grow and conditions change, the characteristics of the city centre will also need to change. In order to respond to new

conditions in a dynamic environment characterized by change, Linköping has created the platform [Framtidens Stads kärna](#). This platform is based on a joint letter of intent. A broad dialogue was carried out that included key stakeholders in the city centre: property owners, merchants, businesses, cultural actors, municipal companies and administrative bodies. During this process, a reference group with representatives from the County Administrative Board, Region Östergötland, the Church of Sweden, business community, municipal administrative bodies and local companies has also been formed. Linköping's central district already has an ambitious and well-established [development plan](#), with addenda concerning architecture and traffic, as well as public gathering places, parks and squares. This letter of intent builds on the development plan and shows that key stakeholders in the city centre have a shared vision and desire to contribute to shaping the city centre of the future. Development, initiatives and investments must contribute to sustainable development in line with Agenda 2030 and the Sustainable Development Goals.



Segregation, safety and security

Management–coordination model for a joint effort to end segregation

Since January 2020, Linköping has been working according to a new model for the management and coordination of interventions to end segregation, as well as safety enhancement and crime prevention measures. This aims to reduce and counteract socio-economic segregation, which has negative effects for society and individuals. Every year, an [action plan](#) is drawn up with 50-60 special initiatives across five priority areas of development. The five development areas and measures implemented are built on a foundation of cooperation, information, participation, equality and gender equality. The model introduces a novel, cross-sector approach where we have established a unique ecosystem, above all between the city, the police and civil society.

District Team (Områdesteam)

In order to help city residents feel safer and more secure in their neighbourhoods, the City of Linköping has been working in collaboration with the police in the [Områdesteam](#) programme since 2021. The initiative particularly targets districts in Linköping that have a higher rate of insecurity and crime. This represents a novel, preventive approach that includes a common arena where different stakeholders can come together to create a safer and more inclusive environment. One of the main objectives of Områdesteam is to elevate the voice of residents. This may involve concerns over unsafe spaces or situations. The feedback provided to the city and authorities helps bring about meaningful change. The district teams maintain a presence on social media in order to reach younger residents and others who may not normally come into contact with authorities.

Test Arena for Safety-Enabling Technologies (Test Arena Trygghetsskapande Teknologier)

A research and development project that increases safety in urban environments, [Test Arena Trygghetsskapande Teknologier](#) will help us learn how new technology can contribute to increased safety in our community. Stakeholders in the public sector, research community and business world are testing new digital solutions to increase safety and a sense of security among community members in a complex public environment. The goal is to perform tests that will teach us more about the potential value of different solutions, as well as their maturity and ability to be applied collectively. Furthermore, tests should contribute to a greater understanding of how the safety-enhancing measures are perceived by the individuals who occupy the test arena. The project was started in early 2023 and will run for 18 months. Linköping Science Park is the project manager and the project is funded by Vinnova, as well as participating companies and organizations. The technologies being tested include an array of sensors that send and receive information via IoT platforms. AI is then used to interpret the data and draw conclusions that will contribute to an increased understanding and new knowledge.



An ageing population

R&D Centre for healthcare, social care and social work (FoU Centrum)

[R&D Centre for healthcare, social care and social work](#) provides the City of Linköping with an inter-municipal arena for research, development and learning. FoU Centrum, which is based in Linköping, provides support for all of the work carried out in the region's municipalities in order to improve social welfare based on research and practical experience. FoU Centrum brings together research and practice on several levels in collaboration with Linköping University and other R&D and research environments in

the region, within Sweden and internationally. The knowledge that is generated must be applied and must be based on the needs of the activities at the time the initiatives and projects are designed. The projects are always carried out as a collaboration. Initiatives for projects can come from activities, partners or FoU Centrum itself. Projects within the framework of FoU Centrum are presented under criterion 4, Expanding.

New solutions through Ignite Public

Linköping municipality is facing major challenges linked to an ageing population. These challenges will require a monumental shift – but our employees are up to the task, offering a host of novel ideas and innovative solutions. Through innovative service development with third parties and the Ignite Public tool, a pilot will be carried out in 2023 within the Social Welfare Department. Through the Ignite process, the city's needs were matched with startups that then presented potential solutions. A solution was selected from among the proposals and a pilot is underway to test an idea collection tool. If the tool functions as hoped and fits the department's needs, it may be scaled up throughout the city's organization.

Award criterion 4, Expanding – *acting as a role model for other cities by supporting the dissemination and replication of tested solutions that boost the local innovation ecosystem; by promoting mutual learning, knowledge transfer and capacity building; and by enhancing cooperation and synergies between cities that are front-runners in driving the local innovation ecosystem, and those that are still exploring and testing their role as innovation enablers. In this criterion, among others, the applicant should consider answering to the following questions: e.g. What are the activities and initiatives for which the city can be considered a role model for others? How is the city sharing its knowledge with other cities? Is the city cooperating with other cities in the areas of this competition? The applicant is expected to provide details on concrete results of the showcased initiatives*

Dare Care Share

In Linköping, we are not afraid to try out new ideas. We care about our fellow residents and our impact on the world around us. We care about the future and are always eager to share our experience. The municipal group, with its administrative bodies and municipal companies, is actively involved in different networks and forums at the local, regional, national and international level. We are always eager to share success stories in areas where Linköping is at the forefront. But it is equally important that we learn from the success of others and that we seek out new ideas for inspiration to make our city even better. Below, we detail some networks and forums that serve as important platforms for knowledge and experience exchange with respect to the good practice examples highlighted in this application.

Local and regional

Digital Linköping

Digital Linköping is the collective name for a number of arenas and forums the City of Linköping uses to engage in dialogue around the digital transformation and to develop novel ideas to meet the challenges of today and tomorrow. [Digital Linköping](#) is an important platform for the dissemination of knowledge and exchange of experience among employees who work with the digital transformation or business/service development, but other municipalities and organizations are also welcome to participate. Examples include lunch meetings, which are held regularly and aim to increase knowledge and inspiration about the technological advances in the city and the outside world.

Cooperation agreement with Linköping University

The City of Linköping views cooperation with higher education institutions as an important factor in developing its own operations and growth in the city, municipality and region. To strengthen our cooperation with higher education institutions, we have introduced "[The City of Linköping's strategy for cooperation with universities and colleges](#)". The City of Linköping and Linköping University have a long history of cooperation and knowledge exchange. In the latest cooperation agreement between the city and the university, signed in 2021, the parties undertake to further develop their long, mutually beneficial relationship and clearly define the organization and forms of cooperation. The collaboration aims first and foremost to benefit the City of Linköping's operations and its residents. Furthermore it must benefit research and education at Linköping University, as well as utilization and innovation. The cooperation agreement shall promote new joint projects between different parts of Linköping University and the City of Linköping. Several examples of successful collaboration are presented in this application.

East Sweden Business Region

The network [East Sweden Business Region](#), (ESBR), which is facilitated by Region Östergötland, gathers together regional public sector actors who work to promote growth. ESBR was established in 2011 and currently consists of over 50 members, including all 13 municipalities in Östergötland. The platform aims to improve and strengthen the work with business services in the municipalities, but also serves as a forum for knowledge and experience exchange. As the region's largest city, Linköping plays a leading role.

- **East Sweden Innovation Week**

East Sweden Innovation Week has been held every year since 2010 to gather participants for a week filled with inspiration, innovation and networking. Innovation Week is part of East Sweden Business Region's work to strengthen the climate in Östergötland for innovation and entrepreneurship. The aim of Innovation Week is to showcase all of the exciting things that are happening around Östergötland which make East Sweden one of the most innovative regions in the world. The City of Linköping provides funding to and partners with East Sweden Innovation Week.

Nationally

Stockholm Business Alliance

Stockholm Business Alliance (SBA) is a partnership between 54 municipalities in eight counties. SBA aims to attract foreign investments, to market the region outside of Sweden and to improve business services offered by the municipalities. SBA offers training courses, networking meetings, conferences and seminars for the alliance's members. Linköping relies on SBA as a platform for the exchange of knowledge and experience between municipalities on a national level.

Swedish Incubators & Science Parks

Swedish Incubators & Science Parks (SISP) is a national industry association that gathers science parks and incubators from around Sweden. SISP has 61 members across Sweden, two of which are Linköping Science Park and LEAD. As one of Sweden's largest science parks and incubators, SISP provides a platform for Linköping to share its successful innovations with other members, as well as a network for the exchange of knowledge and experience.

The climate municipalities (Klimatkommunerna)

The City of Linköping is an active member of Klimatkommunerna, an association of cities and regions working together to reduce greenhouse gas emissions in Sweden. The association serves as an arena where members can share knowledge, experiences and good practice examples in order to highlight the opportunities, obstacles and driving forces behind measures that generate results. The association also helps disseminate knowledge by working in collaboration with a variety of actors in the Nordic region and within Europe (e.g. Energy Cities and European City Facility).

Internationally

European networks and collaborations

International collaboration is an important part of Linköping's effort to share our innovative solutions, as well as a way to learn more about models and experiences from other cities and partners in Europe and around the world. Our collaborations include memberships in networks, development projects and long-term relationships for the exchange of experiences. Linköping is a member of several of the major networks in Europe, such as EUROCITIES and ICLEI, where we work to ensure the continuous exchange of experience around innovative ideas, solutions and working methods based on our common challenges. The list of networks and collaborative projects is quite extensive. Here, we have chosen to highlight a few that touch on areas covered in this application.

EUniverCities

Thanks to our close collaboration with Linköping University, we also participate with the neighbouring city of Norrköping in EUniverCities, a European network in which medium-sized cities and universities work in tandems. The network primarily brings together high-tech cities and universities and promotes technological development, innovation and knowledge building for smart, sustainable and inclusive communities. The goal of the network is to provide a platform for the exchange and dissemination of knowledge, competence and experience through collaborations between cities and universities. Within EUniverCities, the City of Linköping and Linköping University have contributed to the development of a handbook for cooperation between cities and universities, which was launched at the end of 2021. In the "Handbook for Strategic City-University co-operation", the City of Linköping, together with Linköping University, highlights its "Strategic cooperation agreement" and "Student employees" as examples of successful and unique joint initiatives.

European Social Network

Linköping and FoU Centrum have been members of the European Social Network (ESN) since 2014 and have actively participated in ESN's activities over the years, including contributions at the network's meetings and annual conferences. This serves as an important part of FoU Centrum's transnational dissemination activities. ESN is an important platform for relationship building (e.g. before EU applications). ESN has been a partner in FoU Centrum's project LINK since 2022.

International Association of Science Parks and Areas of Innovation

Linköping Science Park has been a member of the International Association of Science Parks and Areas of Innovation (IASP) since its start in 1984. The industry organization has approximately 300 members from 80 countries. Linköping Science Park is an active member and participates in the organization through engagement in international research, by sending lecturers to international conferences, highlighting projects from the science park's own operations (Inspiring Solutions) and providing support to developing countries that want to start their own science parks and innovation clusters. Since 2019, Linköping Science Park's CEO has been active in IASP's board, where she started as chair of the European division and is now vice chair. At the world conference in September 2023, she will be elected chair. There are 13 members of IASP from Sweden.

European collaborations

In Linköping, we work with EU projects as important platforms for the exchange of knowledge and experience and a tool for developing the city's operations and services in order to increase the quality of life for our residents. In recent years, we have conducted or actively participated in many projects with a focus on societal challenges, the ageing population and segregation. A few examples are highlighted below.

- **Care skills escalator**

Between 2019-2022, Linköping led the Care skills escalator (CASE) project, which was funded by Erasmus+. CASE was a collaboration between five participating parties in five European countries. All participants shared a common challenge: addressing dementia in an ageing population, where more qualified workers are needed to address this challenge. The goal of the project was to develop and test a new model for competence development. The project was a joint effort that aimed to gather practical knowledge about dementia and present this knowledge using flexible online learning resources and content accessible through a range of devices. The platform proved to be useful as a support tool for professionals with different experiences in healthcare and social care. Designed to be user-friendly and accessible, it uses language that is easy to understand, thus avoiding specialized medical terminology.

- **Learning and innovation network**

The ongoing project Learning and innovation network (LINK) creates a network of learning and innovation labs in Europe to enable the exchange of experience and offer support around common challenges related to demographic changes and the implementation of local care, social care and social services. The goal is to develop a model for a network of learning and innovation labs in Europe, which will be created in the project. The ultimate aim is to contribute to service development and the exchange of experience between the parties. Another goal is to contribute to the introduction of local care, social care and social services. LINK is co-funded by the European Union through the Erasmus+ programme and runs from 2022-2025. The project is a collaboration between seven parties in six European countries.

- **CARES – Remote Healthcare for Silver Europe**

CARES – Remote Healthcare for Silver Europe, is a transnational development project funded by Interreg Europe. Linköping FoU Centrum is one of eight regional partners. The project, which is led by a regional public authority in Poland, was started in December 2022 and runs through May 2027. CARES has been developed based on identified demographic challenges and the changes needed to address these challenges at a strategic level and comprehensive level. Given the current competence shortages, which are expected to continue into the future, and an increasing elderly population in need of healthcare and social care, digital solutions and e-health are essential tools. These new, innovative solutions can extend the time an individual can live an independent life in their own home.

- **MileSTONE**

The City of Linköping is one of 10 partners in the Interreg Europe project Milestone, which runs from 2023-2026. The project focuses on sustainable labour market integration strategies for non-EU citizens. The aim is to tap into the target group's existing competence rather than channelling new immigrants into low-income jobs. Strategies include the promotion of vocational education opportunities and lifelong learning, and encouraging more non-EU citizens to start their own businesses. The hope is that the project will result in adapted guidelines and policies that support labour market integration. In total, ten partners are participating in the project, one of which is Linköping.

Sister cities

Linköping's work on the international level has long relied on collaboration with our sister cities within and outside Europe. These special relationships have been built over many years. For example, we signed cooperation agreements with cities in the Nordic countries already in the 1940's. Our international collaborations are tremendously important to the City of Linköping – and that goes for both the public

sector and business sector. Our established networks allow us to transfer knowledge through the dissemination of innovative ideas and technical solutions. We also conduct joint projects where all parties involved see valuable benefits from the exchange of experience. Below are a few examples of projects and activities that we are currently engaged in with three of our sister cities.

- **Palo Alto, USA**

The collaboration with Palo Alto in California has continued uninterrupted since 1987. Much of our collaboration today centres around climate change and energy, especially in the area of sustainable urban development. Linköping and Palo Alto face similar challenges in terms of greenhouse gas emissions and share the same ambitious goal to significantly reduce CO₂ emissions by 2030. We have engaged in the active exchange of knowledge and experience over the years, which has included actors outside the city of Palo Alto, for example, Stanford University, the association [Neighbors Abroad](#) and [Nordic Innovation House](#). Linköping University has been an important participant here in Sweden. In addition to the exchange of ideas in sustainability and technology, joint projects have also been carried out between artists and upper secondary schools, and exchanges have been independently arranged by citizen groups.

- **Kaunas, Lithuania**

Kaunas and Linköping have also been sister cities for many years, and our exchange of knowledge and ideas includes areas such as healthcare, social care, education and culture. Not to mention the collaboration between companies in Linköping and Kaunas, which has intensified in recent years.

- **Enschede, the Netherlands**

Both Linköping and Enschede are facing similar challenges when it comes to urban transformation. There is a lot of overlap between the two communities, which contributes to an active dialogue. Talent attraction is another familiar challenge in both cities, and there is an active exchange of experiences here to share strategies and approaches. Furthermore, Linköping Science Park and Kennispark Twente, both of which focus on high-tech startups, share many common characteristics in an in-depth collaboration.

Award criterion 5, City innovative vision – applicants should demonstrate their long-term strategic vision/plan, highlighting the innovative initiatives that have positively contributed to the transformation of the city and which will further support the development of a sustainable and resilient innovation ecosystem ensuring the green and digital transitions. In this criterion, among others, the applicant should consider answering to these questions: e.g., what was the “point of departure” of the city and what has been achieved by now? What does the city want to achieve, and which are the tangible actions already taken or put in place to get to those objectives? The applicant is expected to provide details on concrete results of the showcased initiatives. Moreover, the applicant is invited to provide information on how all showcased activities follow the innovative vision/strategy.

Linköping – a city where the future is ever-present

With one eye on the future, Linköping is in an exciting stage of its history, where so many positive factors have converged to foster unprecedented growth and an unwavering faith in the future. Linköping has its sights set on a transition to a greener, digital, more equitable future and strives to be a leader in promoting innovation and development to enable this transition.

Linköping - Future now

The groundbreaking innovations

The life-friendly city

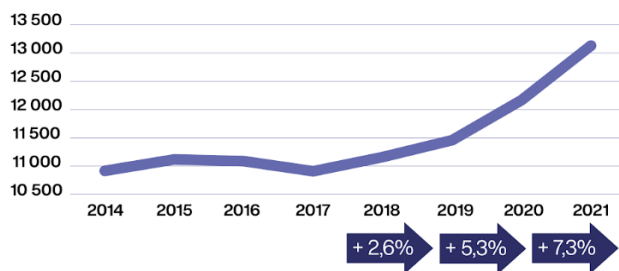
Linköping is a life-friendly city and a place where ground-breaking innovations become a reality. The city's vision and goals to ensure a greener, digital, more equitable future are laid out in [Linköping's Climate and Energy Programme](#), [Linköping's Programme for Digital Transformation](#) and [Linköping's Labour Market Programme](#), which are described below. But it is not only the city's vision and strategies that chart the path forward. In Linköping, we know how to use the power of our high-tech industry, public sector and university to accelerate the transition to a greener future. This goes hand in hand with [Linköping University's Vision 2030](#). In order to promote strong, sustained development, the city needs to ensure that Linköping is an attractive place to live, work, study and do business – today and in the future. The City of Linköping takes an active role here, which is outlined in the city-wide strategy for sustainable business development – [Linköping's Business Programme](#). A healthy business climate promotes entrepreneurship, creates jobs and expands the tax base. The most frequent point of contact between companies and a city often occurs in the exercise of authority. When companies are satisfied with a city's exercise of authority, the basic conditions needed for a good business climate are created. In the national survey SKR Insikt (Satisfaction Index for the Exercise of Authority), Linköping is once again at the top among Sweden's ten largest cities.

Ground-breaking innovations

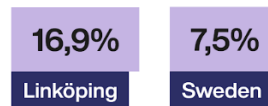
The reason Linköping is home to so many ground-breaking innovations may be attributed to the unique combination of a thriving business community with broad reach and technical expertise and a world-leading university. Or perhaps it is our vigorous innovation support system, and of course, all of the forward-looking people who live, work and do business here. Each year, the city allocates substantial funding for investments and initiatives that promote innovation and development.

If we look specifically at the tech sector, we can see that the city’s investments and commitment to cooperation are yielding good results. Since 2014, the number of employees in the tech industry has increased by over 20 percent. Linköping is clearly a city where new ideas and innovations are born. Compared to the rest of Sweden, the city has a very high proportion of tech companies within research and development. Seventeen percent of Linköping residents work in the tech industry, which can be compared to the rest of Sweden, where that number is 7.5 percent. This high concentration of talent in the tech sector is an important reason Linköping is home to so many ground-breaking innovations.

Number of employees in the tech sector



Percentage of total workforce employed within the tech sector

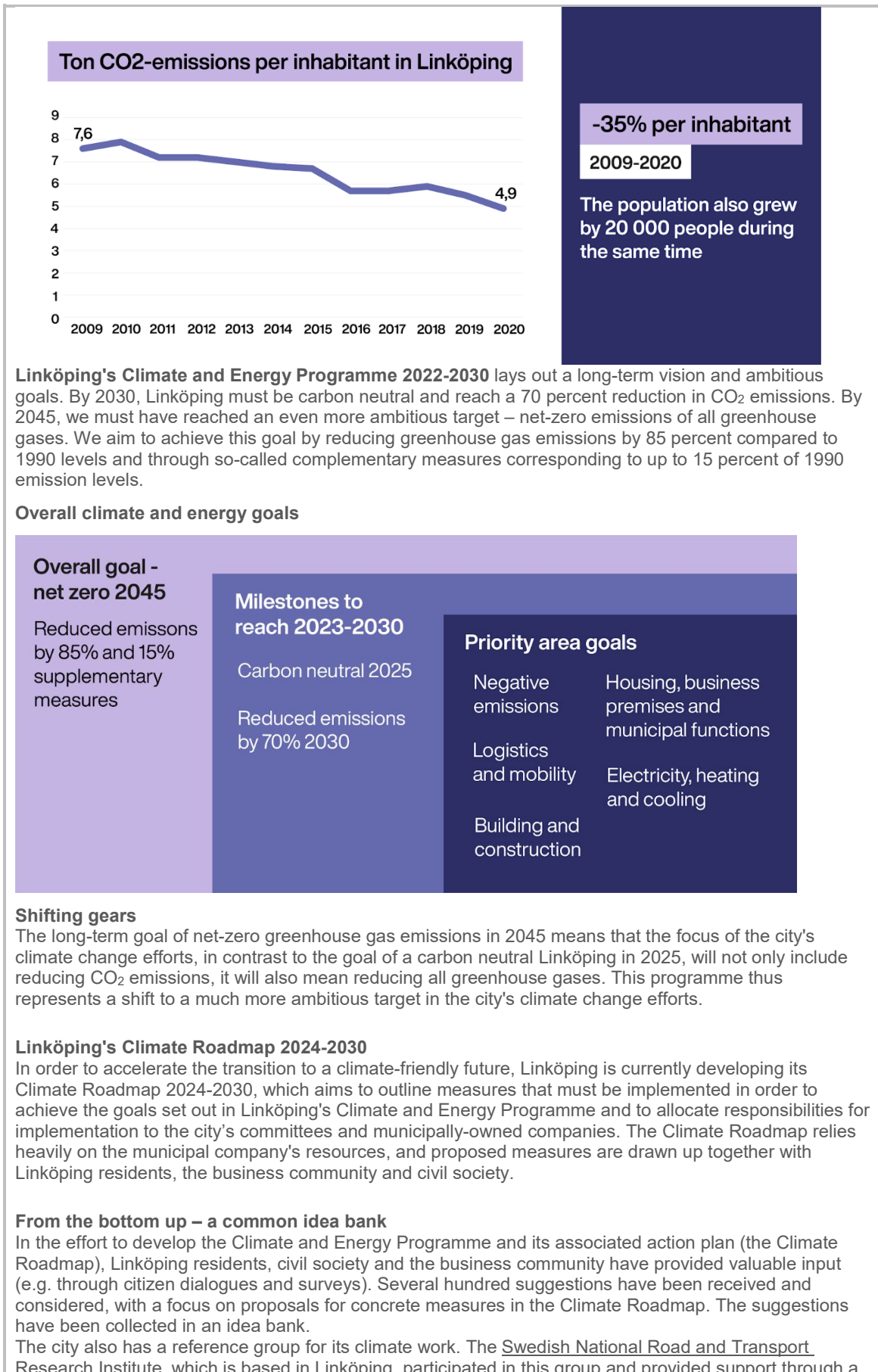


The life-friendly city

Linköping is a place where ideas come to life. We are building the innovative, sustainable and smart city of the future. Vallastaden and Ebbepark are two recently developed districts that have taught us a lot about how to develop and build our city with bold new solutions for mobility, energy, waste and diversity. We are building the life-friendly city of tomorrow together with our residents. This further reinforces the value of arenas like City Centre of the Future, Testbed Ebbepark and our collaboration with the voluntary sector. Linköping consistently ranks high among the best cities to live in, and in the latest survey conducted in September 2022, 95.6 percent of residents stated that they think the city is a good place to live. We have been surveying the public perception of Linköping since 2001, both among our residents and on a national level. The surveys show that Linköping is one of the top five most attractive cities in Sweden.

Gear up and get ready for the green transition

Since 2012, the City of Linköping has been actively working to achieve its goal to be CO₂ neutral by 2025 and has high ambitions to be a world leader in climate change solutions. Thanks to these high ambitions, we have reduced our net emissions by 35 percent per resident between 2009-2020. During the same period, the total population increased by approximately 20,000 people, while we also increased our production of renewable, resource-efficient electricity. In terms of output, Linköping is in second place in the national solar statistics. Tekniska verken’s work to help Linköping become the world’s most resource-efficient region is critical for the city’s transition to a greener future, and the Linköping Initiative and Climate Neutral Linköping 2030 are great examples of Linköping’s effort to gather forces and seek out collaborations to implement smart climate solutions. Add to that the transition and development in the business world through the support and initiatives offered through Linköping Science Park.



research perspective in the development of a social impact assessment for the activities proposed in the roadmap. The assessment has mainly aimed to evaluate how the different activities will affect different groups, for example, women versus men, socio-economic factors, age, etc., but also public health.

The city as a testbed

The City of Linköping is partnering with the municipality of Örebro to carry out a feasibility study within the framework of the European Regional Development Fund National Programme for Sustainable Urban Development. The purpose of the feasibility study is to determine what is needed to establish long-term testbeds in the city to accelerate climate and energy innovations and address challenges related to urban sustainability. We aim to identify obstacles and opportunities for the business sector, small and medium-sized enterprises, and cities/municipalities, as well as to facilitate experience exchange between the project's participants. In Linköping, we are basing the study on the Ebbepark testbed.

Common method and identification of the conditions needed for a new territorial strategy

The feasibility study will allow us to jointly formulate proposals for a common method for district-level experimentation, as well as to scale up innovative solutions that promote sustainable development and allow us to identify the legal, economic and organisational conditions needed for successful and beneficial urban experimentation together with the business community. Over the long term, the goal is for the feasibility study to lay the foundation for a new territorial strategy.

An ongoing digital transformation

Linköping's Programme for Digital Transformation is a key document for meeting the city's overall objectives and long-term goals. The programme guides the city's ongoing service development effort in order to ensure that we take advantage of the opportunities offered by the digital transformation. In 2023, the programme will continue to serve as a starting point for the establishment of a framework and to create the conditions for a number of digital capabilities the city needs to secure. The focus for 2023-2024 is information and data management.

Development Plan 2024-2027

The city's work continues to develop and implement more concrete activities that will move us further down the road in Linköping's digital transformation. The development plan therefore needs to set out a number of conditions that must be achieved each year to reach the overall goal of an efficient and innovative welfare system facilitated by the digital transformation.

- **Data-driven built environments**

In order to meet the needs of the future, the City of Linköping is building a completely new service platform that provides a coherent process to create the built environment that relies on digital technologies and a new data-driven approach that will create the conditions for sustainable growth in Linköping. All geographic information (geodata) that is produced and consumed within the planning and development process is gathered in one place. This leads to the increased availability of common data, which results in the seamless flow of information between sub-processes. The establishment of an unbroken digital data flow in the built environment process is underway and is expected to be completed by 2024. The platform is designed to facilitate open data management, as this approach simplifies information sharing from the built environment process with others, while making it easier to receive data from external sources. The City of Linköping is collaborating with national authorities in this work, such as Lantmäteriet (authority for land survey) and the National Board of Housing, Building and Planning and has been the driving force behind a national network between several municipalities and cities to promote the exchange of experience and national coordination. This new, data-driven approach is not only a necessary change for the reasons described above, it also reduces costs, saves time and increases value for the customer.

- **A gateway to digital services for residents and businesses (Mitt Linköping)**

In 2023, the city has prioritised the improvement of the common interface and access to self-service systems for businesses and residents. The city is carrying out this effort through the Mitt Linköping development project, which will provide smart digital services to residents and businesses by offering access to uniform information and a common portal for all case management activities through linkoping.se. The portal will provide residents and businesses with an overall summary of their communications with the City of Linköping. Mitt Linköping will be linked to external data sources, such as the National Board of Housing, Building and Planning and the Swedish Tax Agency. The first version of Mitt Linköping will be launched at the turn of the year 2023-2024.

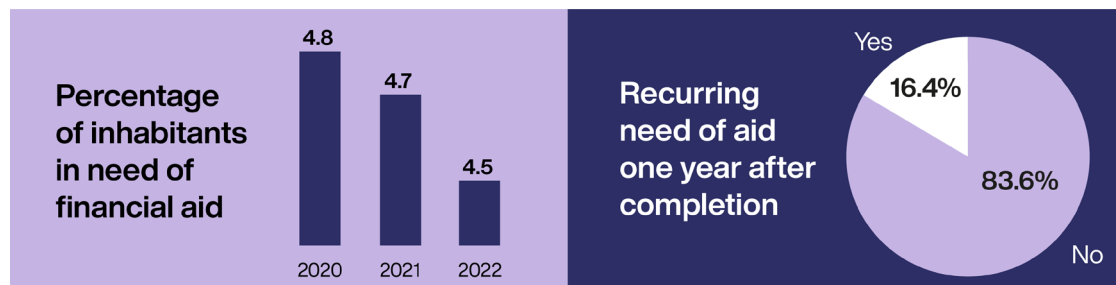
We need everyone on board for a just transition

If we are to ensure a just transition to a more sustainable future, we must also ensure that no one is left

behind and that all members of society can benefit from the opportunities the future holds. Linköping's labour market programme aims to help residents who are excluded from the labour market to find work. The City of Linköping takes an active role in local labour market policy in order to ensure that more Linköping residents are able to move from dependency on benefits to economic self-sufficiency. In order to succeed, we need a robust collaboration between the business community, public sector, voluntary sector and education providers. Moving from benefits to work improves the life of the individual and society as a whole. Economic self-sufficiency is the key to freedom, self-determination and reduced alienation. A number of investigations carried out by the City of Linköping have identified shortcomings in our efforts to help unemployed residents in need of financial assistance to become self-sufficient. These investigations have shown that the city incurs high costs for financial assistance and that there are a large number of residents with a long-term need for income support. A large proportion of the target group consists of newly arrived immigrants. The investigations also identified deficiencies in the target group's language skills and education level, as well as a gap between the jobseekers' skills and the needs of employers. The city therefore determined that there was a need for a new, more efficient approach to address the problem.

A new administrative body opens the door to a brand new approach

Back in 2016, the city had already initiated the process of improving and expanding its integration efforts and labour market measures. This resulted in a brand new approach and a new administrative body that better responds to the needs of the target group. Three of the city's departments, which were involved in integration and labour market measures, were tasked with developing a new work process and to build the foundation for a new administrative body that will specifically work to reduce the number of households in need of income support. Significant investments were made in employee collaboration from the start in order to create awareness and commitment. Working groups were formed, with representatives from all of the departments in each group. The new administrative body, the Integration and Labour Market Administration, was started in 2022. The new working methods have already yielded results, reducing the number of households in need of income support from 2,658 households in December 2020 to 2,233 in November 2022, a decrease of 16 percent in just 24 months.



The vision is for Linköping to have the largest proportion of adults who have achieved economic self-sufficiency among all cities in Sweden. The goal is for 96% of the city's residents to achieve economic self-sufficiency. This goal and the motivation behind it are clear: Linköping wants more residents to participate in the labour market, fewer residents to depend on income support and the business community to gain access to the competence supply it needs.

Linköping Future Now summit 2024

Collaboration is in Linköping's DNA. Here, we believe in working together – public sector, business community, academia and civil society. Together, we have taken on some of the biggest challenges and found new ways to address these challenges. Linköping has come a long way as a city – we have not only contributed to a shift on the local level, we have also had an impact on the national and international level. The Linköping Future Now Summit 2024 will aim to offer a platform for the exchange of experience and knowledge, where we can share in our successes and the lessons learned. If Linköping is named a European Rising Innovative City 2023, this will all become possible. We strive to continue to grow together because here in Linköping, we firmly believe that a city where residents can grow and thrive is also a city where ideas come to life.



3. OTHER


3.1 Ethics

<p>Ethics</p> <p><i>Describe ethics issues linked to your application (if any) and the measures you took/intend to take to solve/avoid them.</i></p>

3.2 Security

<p>Security</p> <p><i>Describe security issues linked to your application (if any) and the measures you took/intend to take to solve/avoid them.</i></p> <p><i>Indicate if any of the information is/should be EU-classified (Decision 2015/444).</i></p>

4. DECLARATIONS

Double funding	
<p>Information concerning other prizes for this project</p> <p> <i>Please note that there is a strict prohibition of double funding from the EU budget (except under EU Synergies calls). Applications that have already received an EU prize cannot receive a second prize for the same activities</i></p>	<p>YES/NO (If NO, add details)</p>
We confirm that to our best knowledge neither the application as a whole nor any parts of it have benefitted from any other EU prize.	
We confirm that to our best knowledge neither the application as a whole nor any parts of it are (nor will be) submitted for any other EU prize.	
Admissibility self-declaration	
<p>Has the endorsement to apply to this competition been signed by the city’s Mayor or the equivalent highest political representative?</p> <p>Please remember that only endorsements signed at that level of representation will be accepted.</p>	

ANNEXES

LIST OF ANNEXES

The only mandatory annex is the city Mayor’s (or highest political equivalent) endorsement. (Max 2 pages) It should be uploaded separately in the system.

- Chairman of the Municipal Executive Board Endorsement
- Linköping university, Letter of endorsement

HISTORY OF CHANGES		
VERSION	PUBLICATION DATE	CHANGE
1.0	08.03.2023	Initial version (new MFF).