Viable Cities

Kalmar kommun

Climate City Contract 2030

Betweeen Kalmar municipality, the Swedish Energy Agency, Vinnova, Formas, the Swedish Agency for Economic and Regional Growth, the Swedish Transport Administration, the Swedish Environmental Protection Agency and Viable Cities.

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Climate City Contract 2030

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Climate City Contract 2030

Major changes are needed throughout society in order to meet climate goals and save our planet. Doing things the way we have always done them is no longer possible, we have to work in entirely new ways. Together, we are building a movement involving many societal stakeholders in order to achieve our mission: Climate neutral cities by 2030, offering a good life for all within the boundaries of our planet.

Climate City Contract 2030 is a tool that will help us to achieve this. This is a long-term commitment ensuring a developed cooperation between cities and the government level. The starting point for the work is that an increasing number of Swedish municipalities and communities are bringing together a wide range of stakeholders and mobilising at many levels – locally, regionally, nationally and internationally – to pave the way for a faster transition to climate neutrality and sustainability in Sweden, Europe and the world. The cities and agencies working on Climate City Contract 2030 with Viable Cities are pioneers, and thus their ambition is to pave the way for a broader transition involving many more people.

Climate City Contract 2030 is a tool for collaboration in respect of governance and is used to work together beyond the direct control of stakeholders in order to realise a common goal, and it represents a systemic shift towards a holistic approach in public administration

Climate City Contract 2030 provides a context as a catalyst for new, innovative forms of cooperation between cities, the business sector, the academic community, research institutes and civil society. This strengthens the conditions for mobilising and driving joint development in a present and a society that are becoming increasingly complex. Climate City Contract 2030 meets a need for developed governance, a governance process (mobilising on multiple levels) for the climate transition. Climate City Contract 2030 is a way of working to enable stakeholders at different levels of governance to go beyond what they are directly able to control as individual stakeholders in order to realise goals and missions that involve systemic shifts. In particular, it involves moving from piecemeal operations to a holistic approach.

Together, we are building capacity step by step so that we can speed up the transition.

1. Purpose of the Climate City Contract 2030

The purpose of this Climate City Contract is to accelerate the climate transition in cities within the framework of the 2030 Agenda while also contributing to the continued recovery and evolution of the Swedish economy at a time shaped by a number of several interlinked crises.

The Climate City Contract expresses the parties' intention to raise the level of ambition in the field of sustainable urban development and climate transition. The Climate City Contract also places Sweden and Swedish cities in a favourable position to act as international pioneers in the urban climate transition. This is to be achieved by means of mutual, long-term commitments to initiatives by the signatory national agencies, the Viable Cities innovation programme and the municipality.

2. Parties

Parties to the Climate City Contract 2030 are:

- Kalmar municipality.
- The agencies: Swedish Energy Agency, Swedish Governmental Agency for Innovation Systems (Vinnova), Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas), Swedish Agency for Economic and Regional Growth, Swedish Transport Administration and Swedish Environmental Protection Agency.
- The Viable Cities strategic innovation programme[1].

3. Municipal commitments

3.1. Municipal climate goals

Sweden should have no net emissions of greenhouse gases by 2045. The ambition is for Kalmar municipality to be climate-neutral as early as 2030. Together with another 22 municipalities, the municipality has been selected to lead the Swedish transition to climate-neutral cities by 2030.

Kalmar will go on being one of Sweden's most sustainable municipalities and a role model in respect of the environment. At present, Kalmar – like other Swedish municipalities – has an environmental and climate impact that is several times

[1] Viable Cities is a strategic innovation program funded by the Swedish Energy Agency, Vinnova and Formas. The program runs until 2030 and has approximately 130 memberorganisations. Hostorganisation is KTH.

greater than what is sustainable from a global perspective. The environmental and climate transition is a matter of urgency, therefore.

For the past decade, Kalmar municipality has been part of the county of Kalmar's efforts towards a fossil fuel-free region by 2030, and since 2019 it has had a vision and goals extending to 2025 in order to achieve a fossil fuel-free municipality. The vision for 2025 states the following:

"In a green Kalmar, both water and green spaces are a vital resource and a prerequisite for a good life. We are developing our activities in harmony with nature, and we are at the cutting edge of climate and environmental work. We are developing transport systems that are fast, efficient and sustainable in the long term. The percentage of renewable energy is increasing rapidly, and Kalmar is well on its way to becoming a fossil fuel-free municipality by 2030. Kalmar's clean water and our toxin-free environment have made us one of the greenest municipalities in Sweden."

The current Action Plan for a Fossil Fuel-Free Municipality 2023 includes the following targets:

- Energy use in the municipal group must be reduced by 10 per cent between 2018 and 2022
- Kalmar municipality's own vehicles and purchased transport must be fossil fuel-free by 2023
- Domestic flights to and from Kalmar Öland Airport must be fossil fuel-free by 2030
- 45 per cent of passenger transport must involve walking, cycling and/or public transport by 2025

Climate emergency 2020 – The meeting of the municipal council held on 26 October 2020 addressed a citizens' proposal on "the living environment that we all share is under threat", with climate emergency being one of the points raised. The municipal council concluded that there is a global climate emergency. This is based on the information available from the Swedish Environmental Protection Agency and SMHI, along with the fact that the EU Parliament has declared a climate emergency in 2019. Kalmar municipality is taking action on a local level.

New objective for the upcoming Action Plan for a Climate-Neutral Municipality 2024–2030 – The Climate-Neutral Kalmar 2030 initiative is enhancing the objective in Kalmar's climate action. The vision is for Kalmar to have no net greenhouse gas emissions by 2030, which means an 85 per cent reduction in emissions compared to 1990 levels. The remaining emissions down to zero have to be offset by various actions that capture and sequester greenhouse gases. The Climate-Neutral Kalmar

2030 goals are applicable to the entire geographical region of Kalmar municipality, and include our consumption-based emissions.

3.2. Strategy

The impact of climate change and the goal of becoming fossil fuel-free and climate-neutral by 2030 will involve an extensive transition of all sectors of society, and this must be achieved in a way that makes Kalmar better for everyone, leaving no one behind. All of the UN's Sustainable Development Goals, the 2030 Agenda, will provide guidance all of the municipality's activities. A number of different action plans and strategies, which have either been adopted or are in the pipeline, are helping to increase the pace of the transition.

The strategies in the existing Action Plan for a Fossil Fuel-Free Municipality by 2030 are as follows.

- Fossil fuel-free energy production
  - Encourage greater biogas production
  - Strive to maximise production of solar power and increase production of wind power
- Fossil fuel-free energy usage
  - Travel, freight transport and works machinery must be optimised and converted to run on biogas and electricity
  - Act as a role model for fossil fuel-free commuting
  - Kalmar Öland Airport, in cooperation with the airlines operating services at the airport, must do its best to encourage air passengers to use biofuels
  - Infrastructure for renewable fuels must be well developed
- Efficient use of energy
  - Sustainable travel in Kalmar must be simple
  - Opportunities to share and co-use vehicles must be exploited
  - The potential offered by digitalisation must be used to the full
- A growing business sector for sustainable development
  - We must be open to innovation and collaboration with the business sector for fossil-free competitiveness
- Knowledge, awareness and sustainable consumption

- We must act as a role model and actively encourage other stakeholders in society to become fossil fuel-free

- Governance and organisation
  - Governance, resources and expertise must provide the right foundation

Kalmar municipality's Climate City Contract is based on the adopted goals and the Action Plan for a Fossil Fuel-Free Municipality by 2030 and its strategies, as well as the increase in ambition involved in the decision to achieve a climate-neutral municipality by 2030.

The commitment to a climate-neutral municipality means that an entirely new action plan for a fossil fuel-free and climate-neutral municipality will be developed in 2024. This plan aims to support the work of administrations and companies on climate calculations and plans for greenhouse gas reduction.

There are a number of strategically important policy documents that need to be interlinked in the transition process. These include the climate change adaptation plan that was adopted in December 2021 and a new comprehensive plan for the municipality's physical structure for land and water use, which was adopted in June 2023. A number of plans and programmes will integrate the "climate-neutral 2030" objective as the pace of the work as part of Climate-Neutral Kalmar is stepped up.

The work of Climate-Neutral Kalmar 2030 will be based on the following thematic areas:

3.2.1 Sustainable mobility

Kalmar is a rapidly growing municipality. Besides population growth, vehicle ownership, the most space-intensive mobility of all modes of transport, is also on the increase. That is why the shortage of space is a crucial issue in comprehensive planning. Active mobility is also a key issue, together with the demographic challenges and the potential for improvement of public health. The third aspect is the resource issue; that is, the transition from fossil fuels to more sustainable alternatives. Against this background, Kalmar is basing its mobility planning on the HYR concept (Hälsofrämjande-Yteffektivt-Resurssnålt, Promoting Health – Efficient Use of Space – Resource-Efficient).

Kalmar has devised a Mobility Strategy which will be adopted by the end of 2023. This follows the EU's planning process for SUMP (Sustainable Urban Mobility Planning) and includes action plans in the following areas: action plans for 1) Walking 2) Cycling 3) Public transport 4) Cars 5) Freight transport 6) Fossil fuel-free fuels and 7) Mobility Management.

3.2.2 Sustainable urban planning

Kalmar's comprehensive plan from 2023 has a clear approach to planning and developing a living environment characterised by accessibility, diversity and equal living conditions in both urban and rural areas. The comprehensive plan is valid until 2035, but is aiming for 2050 and paves the way for Kalmar to grow sustainably in the coming years. Kalmar must be a socially, economically and environmentally sustainable municipality and an attractive place where people can live, visit and work. This permeates all targeting objectives, strategies, principles and standpoints.

Standpoints for the following are of particular relevance to the climate issue: "Changing climate", describing how climate impact can be limited and how Kalmar municipality will adapt to the future climate; "Mobility and traffic", on how mobility and traffic have to undergo development towards sustainability; "Sustainable development of structures" with five principles promoting sustainable development and contributing to a high quality of life throughout the municipality; "Wind power", with ideas on how wind power should be developed and managed within the municipality; and "Technical supply" on infrastructure for energy supply, water, sewage and waste.

According to a sustainability assessment (an extended environmental impact assessment) of the comprehensive plan, a planned population increase of about 800 residents per year presents a challenge in relation to the municipality's climate goals. That said, however, the comprehensive plan is considered to be ambitious when it comes to reducing climate impact by siting buildings in locations offering public transport, reinforcing public services adjacent to buildings and investing in public transport, walking and cycling, for example. Planning for the expansion of renewable energy and energy efficiency in buildings and structures is also deemed to be heading in the right direction, even if certain elements are beyond the municipality's control and require close collaboration with the Swedish Transport Administration and Region Kalmar County.

3.2.3 Sustainable construction

One overall ambition is for the municipal group's own properties to have low climate impact. In construction projects where Kalmar municipality is both client and executing party, requirements are defined for 25 per cent lower energy consumption than the Swedish National Board of Housing, Building and Planning's building regulations. Sustainable construction must be encouraged for land allocation, such as circular solutions for irrigation, high energy standards, own energy production, sustainable material choices and the option of cultivation. Greenhouse gas emissions must be reduced over the entire life cycle of the building.

Work is in progress on developing a roadmap for climate-neutral construction. This roadmap must form a basis for designing and ordering new buildings in order to gradually achieve climate neutrality by 2030. Reuse is a key element in reducing the climate impact of construction, which is why the conditions for reuse with both construction and demolition need to be reinforced. When the roadmap is completed, a pilot project involving a climate-neutral preschool will also be implemented as a way of learning from real-life scenarios so that climate-neutral construction can continue in Kalmar municipality.

In general, basic conditions for sustainable construction also need to be developed. The technical systems in the form of infrastructure with plants for energy, water, sewage and waste need to be expanded, enhanced and altered as the municipality's population increases. They also need to be developed in order to cope with a changing climate and be reinforced by innovation and trends in respect of aspects such as digitalisation, automation, the sharing economy and artificial intelligence.

3.2.4 More efficient use of energy

Kalmar municipality must work according to the Fossil Free Sweden Roadmap for Fossil-Free Competitiveness within the building and construction sector's roadmap for fossil-free competitiveness, with the goal of reducing greenhouse gases by 50 per cent by 2030 (compared to 2015) throughout the life cycle of buildings.

A lot also hinges on habits and behaviours. A kilowatt saved is always the most cost-effective kilowatt. Experience from public campaigns indicates that a 10–20 per cent reduction in energy use can be achieved by raising awareness and changing behaviour. Initiatives in respect of efficient energy production, use, storage and sharing must be viewed as an opportunity.

Current challenges involve smarter and more consistent energy use – throughout the year and during the course of the day. Power peaks, which occur when energy use is highest in relation to energy production/supply, need to be cut. Energy management and energy storage are becoming increasingly important areas when it comes to ensuring a resilient, cost-effective and smart energy supply.

3.2.5 Renewable energy

Kalmar municipality will be self-sufficient as regards renewable electricity by 2035. Production in the county and municipality needs to increase if we are to achieve greater self-sufficiency in renewable energy. Wind power, bioenergy and solar energy are the types of energy currently available in Kalmar municipality, but new energy carriers such as hydrogen and electrofuels are just around the corner. Kalmar municipality has good opportunities to produce solar power, and a number of large solar parks are being planned. The municipality is working actively in close cooperation with farmers in order to establish new biogas producers. Planning for two

co-digestion plants is currently in progress The environmental benefits from these plants would be equivalent to about two-thirds of the municipality's territorial CO2 emissions.

3.2.6 Greater circularity

Kalmar must be a circular society by 2045, and in its own operations by 2030. Kalmar municipality also has a long-term goal to reduce waste in the municipal group by 30 per cent between 2018 and 2025 – increased waste separation opportunities, reduction of plastic use and resource awareness in procurement procedures are all ongoing activities that aim to achieve this.

Kalmar municipality is running a number of projects that fit in well with a circular approach. Fritidsbanken, which provides thousands of items of sports and leisure equipment to residents, and Återbruket, which collects and redistributes office furnishings, etc., are two well-established and popular organisations. Kalmar municipality's first pop-up reuse container known as "TaGe" opened in 2023, travelling to different locations in the municipality to meet different target groups. TaGe allows residents to both drop off and collect items that can be reused, thereby helping to increase their lifespan and reduce waste.

Another example involves reducing the spread of microplastics from football pitches made of artificial turf, which are fitted with equipment to prevent granules being picked up and collect granules from players before they leave the pitch. Another relevant area involves a reuse project for finding ways of reusing building materials and office furnishings.

However, achieving a circular economy requires a societal change, replacing a traditional "throw-away society" with circular processes. Services and products are designed, manufactured and structured using toxin-free, sustainable materials that are easy to adapt while they are being used and can be easily dismantled when they come to the end of their lives so that they can be fed back into their own or others' manufacturing processes. A circular economy paves the way for greater collaboration and symbiosis between stakeholders, as a residual flow in one process can become a raw material in another.

3.2.7 Sustainable procurement

Kalmar municipality procures goods and services worth about SEK 2.5 billion every year in accordance with the Public Procurement Act. The volume of purchases provides a great opportunity to make an impact in a more sustainable direction.

Kalmar municipality's procurement process defines clear social and environmental requirements that focus on factors such as labour law conditions, social responsibility, animal welfare and minimised environmental impact. Fossil fuel-free transport and

toxin-free products are areas in which Kalmar municipality has made successful contributions to market development.

Extensive development work is progress in order to clarify further the purchasing policy with guidelines, a sustainable procurement checklist and procurement templates with a view to ensuring that the municipality's purchases assist with sustainable development in accordance with the UN's Sustainable Development Goals. Sustainability requirements should ideally be placed after market analysis and in discussion with market stakeholders, and reward providers who are at the forefront. Compliance with contracts and defined sustainability requirements will be monitored more clearly and systematically.

The mission in 2024 is to apply for project funding for enhancing knowledge and enabling circular construction, and for circular procurement and monitoring.

3.2.8 Sustainable production and consumption

Our climate impact is due not only to what happens within the geographical boundaries of Kalmar. A significant percentage of consumption-based greenhouse gas emissions from Kalmar residents are generated by production outside the borders of the municipality and Sweden.

As regards the municipality as a consumer, the ambition is for circular and sustainable procurement to form an integral part of the municipal group's purchasing process. Reaching out to the wider public is a more complex task. Consumption-based emissions from the average Swede amount to 9 tonnes of CO2 per year. In 2022, Kalmar joined a project funded by Formas together with the Stockholm Environment Institute and Umeå municipality for further development of the "Consumption Compass". The Consumption Compass is a digital tool that can be used by municipalities in Sweden to illustrate, analyse and reduce emissions from their consumption down to postcode level. Models and practical application will continue to be developed in 2024.

3.3. Organisation and management

The basic idea as part of Climate-Neutral Kalmar is for management and governance to take place according to regular decision-making processes within the Kalmar municipal group. Climate-Neutral Kalmar also involves promoting cooperation across organisational boundaries and between different sectors of society, developing forums in which innovation and new forms of cooperation are created, and accelerating the transition to a fossil-free and climate-neutral Kalmar.

The management of Climate-Neutral Kalmar consists of a *political/strategic steering committee* in the form of Kalmar municipality's Water and Environment Committee, as well as a more operational steering committee made up of heads of

administration and company executives from the Urban Planning Administration, the Service Administration, Kalmar Energi, Kalmar Vatten AB, Kalmar Science Park, Kalmar Öland Airport, Kalmarhem and the municipality's digitalisation manager.

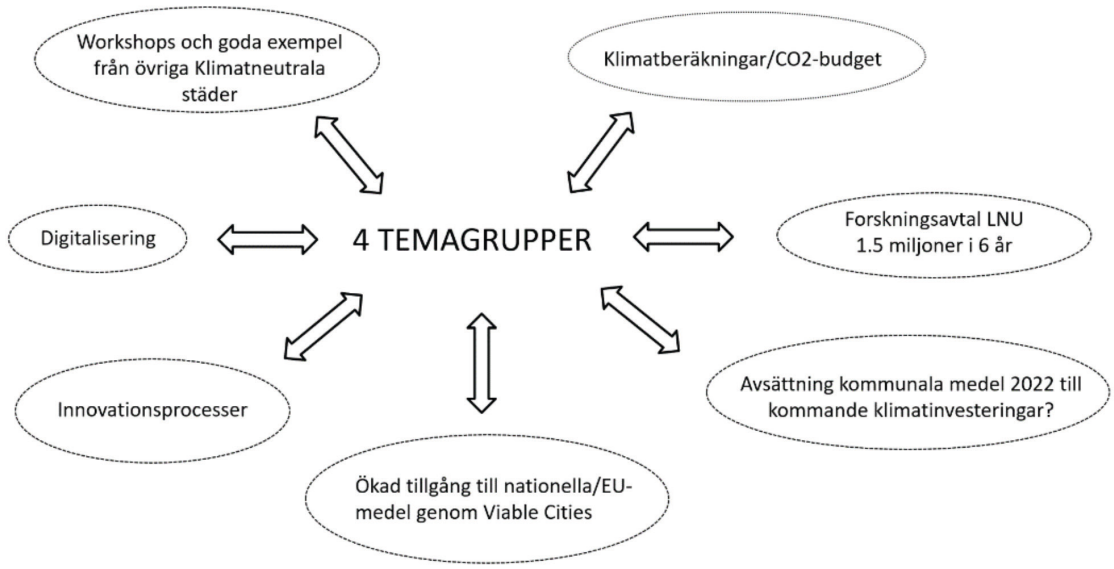

Figure 1. Climate-Neutral Kalmar thematic groups (Swedish).

Day-to-day work is driven forward by an operational team made up of staff from the municipal management office and specialists from administrations and companies who are organised into four thematic groups and meet regularly: 1) Construction, housing, premises and energy production and use. 2) Mobility and fossil-free infrastructure. 3) Circular society and consumption. 4) Green, blue structure and offsetting.

In order to create the best conditions possible that will allow the thematic groups to identify needs, make proposals and develop innovative and effective actions, they will be supported by the *project consortium*, which is made up of the following organisations: Kalmar municipal group, Linnaeus University, RISE, Goda Hus, IUC, the Energy Agency for Southeast Sweden. The thematic groups will also act as the spider in the web when it comes to proposing updates and initiatives while preparing the 2024 Action Plan for a Climate-Neutral Municipality.

3.4. Collaboration with the business sector, civil society, the academic community and citizens

Collaboration with the business sector, the academic community and citizens is a necessary prerequisite for a successful climate transition. A lot of aspects are in place. For instance, Kalmar has had a partnership agreement with Linnaeus University since 2017 that will continue until 2028. Under this framework, scholarships and

specific research projects focusing on leadership, digitalisation and climate issues are being funded in 2023.

With the Kalmar municipal business council, the municipality works in partnership with local businesses and the university in a variety of thematic areas. For a long time, Kalmar Science Park has been a creative meeting venue for companies that are aiming to grow. Kalmarsund Week, which takes place in September every year, is an arena in which municipalities, businesses and civil society meet to exchange experiences and take on new sustainability "commitments" for the coming year. Kalmarsund Week will be used as part of Climate-Neutral Kalmar to mobilise new stakeholders, highlight results and raise ambition levels.

The municipality is raising the level of ambition within Climate-Neutral Kalmar 2030. As the impact of climate change is becoming more apparent, there is increasing political focus and pressure from citizens and businesses to grow sustainably and speed up the transition.

3.5. Climate investment plan

The Climate Investment Plan aims to describe the investments that Kalmar municipality has to make in order to achieve its climate neutrality objective. A number of steps are involved in the process towards a Climate Investment Plan. See Figure 2. From proposed measure to Climate Investment Plan.

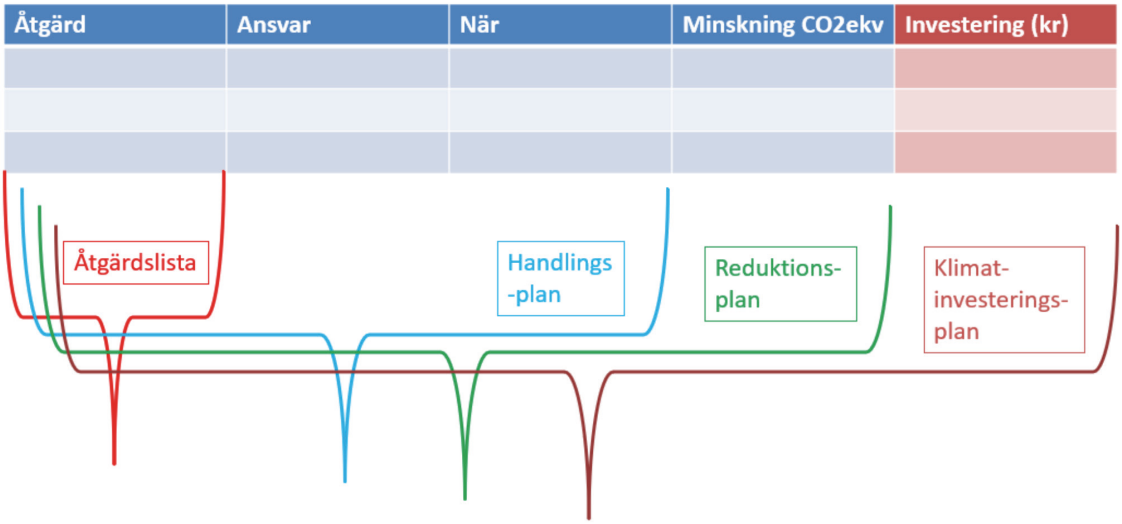

Figure 2. From proposed measure to Climate Investment Plan (Swedish).

Kalmar municipality does not have a Climate Investment Plan as yet. The emphasis has been on climate calculations in order to identify the current situation and select a focal point for a Climate Investment Plan. In 2023, Kalmar has continued to collect

data and pave the way for continuous monitoring and visualisation of our climate-related emissions with the assistance of Power BI and other aspects. A carbon budget for Kalmar municipality geographical region has also been developed in 2022 and 2023 as part of the development project entitled "Carbon budgets as a framework for a coordinated climate transition". This work is being funded by Vinnova and involves the following partners: RISE, Uppsala University, Stockholm Environment Institute and the Federation of Swedish Innovation Companies. In 2024, the emphasis will be on aspects that include developing a scalable model for climate investment planning in the property sector. As part of the project entitled Norrliden – A Million Programme for the Climate, which has recently been awarded funding, Kalmar municipality is joining forces with Kalmarhem AB, GodaHus and a number of private property owners with a view to accelerating the climate transition by developing the ability to collaborate and identify, prioritise and plan effective climate investments.

3.6. Digital support for implementation

Kalmar municipality must be at the forefront of adaptation to and expansion of new digital technologies. The overall goals are that digitalisation and new technology should be used to make life easier for the municipality's residents and businesses, create higher quality and greater efficiency in operations and be an important tool for managing the transition to a sustainable society. This can involve everything from new smart services and sensors to better, more functional urban planning and services.

In 2023, Kalmar municipality has gone on developing the work within the organisation built up in recent years to promote digitalisation throughout the municipal group; a digitalisation manager in a central location and digitalisation leaders working with activity-specific issues in the municipal administrations and companies.

Kalmar municipality was named E-Health Municipality of the Year for 2023. As regards Climate, work has continued on installing various types of smart sensors at Kalmarhem properties, which makes it possible to measure waste volumes, indoor temperatures, etc. and thereby influence the behaviour of residents and optimise the management of homes.

Another initiative that came to an end in 2023 is "StreamSam", a project aiming to digitalise the urban planning process, with the goals of testing and developing methods to streamline the geographical data collection using drones, automating production of three-dimensional models of terrain and buildings, and developing new e-services for streamlining the municipal building permit process. As regards overall governance and monitoring, work will continue in 2024 on finding digital systems that enable automated and more regular monitoring of the municipality's greenhouse gas emissions.

3.7. Innovation hub for climate neutral municipalities

Kalmar municipality is of the opinion that the network involving the 23 Swedish municipalities that are to become climate-neutral by 2030 is very important as a way of gaining inspiration, knowledge and strength in the transition work, but also for distributing Kalmar's ideas and experiences.

Kalmar has continued collaborating in a number of other important networks in respect of climate in 2023, but has also continued working with networks in respect of innovation and digitalisation, such as: "Biogas Sydost", Klimatsamverkan Kalmar län, the Klimatkommunerna association and Fossil Free Sweden for the transition to a renewable society. On an international level, Kalmar is involved in the Union of the Baltic Cities (UBC), where we have participated in a number of climate-related projects together with various stakeholders in the regions around the Baltic Sea.

In the immediate vicinity, Kalmar is maintaining dialogue with Växjö and Karlskrona, the other two cities in the south-eastern region. The purpose of this is to learn from one another and create synergies in development work, as well as promoting a common labour market region and reinforcing the entirety of South-East Sweden in the climate transition.

3.8. Climate change adaptation

Kalmar municipality, like the rest of Sweden and the world, is being affected by a changing climate. This includes flooding that threatens communities, infrastructure and companies, as well as high temperatures that pose risks to the health and well-being of humans and animals. Other examples include water shortages, impact on food production and trade, and increased occurrence of pests, diseases and invasive alien species. The long-term goal for Kalmar municipality's climate change adaptation work is for the municipality to remain resilient in the face of climate change. Human health, nature, cultural heritage and economic interests have to be protected.

Kalmar municipality's first Climate Change Adaptation Plan describes climate effects and their impact, and broadly outlines what needs to be done on the basis of current knowledge, as well as what general measures are necessary in order to make progress. The climate change adaptation plan is aimed primarily at activities performed by the municipal group, which is expected to integrate climate change adaptation into its regular work and is responsible for implementing the measures in the plan, including prioritisation and scheduling.

As we work to become climate-neutral, it is natural to talk about and promote climate change adaptation as well. Preventing and mitigating climate change is a key aspect of climate-neutral Kalmar. In the second six months of 2023, the Urban Planning

Administration appointed a person to lead Kalmar's climate change adaptation work in 2024 and beyond.

3.9. Climate smart mobility

Kalmar's first mobility strategy was completed in 2023 in parallel with Kalmar's new comprehensive plan. One thing the comprehensive plan and the mobility strategy have in common is the fact that the overall goal for mobility is to alter the current modal split. At things stand at present, cars accounts for more than 60 per cent of passenger transport in the municipality, while sustainable mobility (walking, cycling and public transport) accounts for just under 40 per cent. By 2035, the aim is to reverse this modal split, with sustainable modes of transport accounting for 60 per cent and cars for 40 per cent.

To be successful in this, a major change in behaviour is needed in order to significantly reduce short urban journeys by car in particular. 44 per cent of urban car journeys cover than five kilometres at present. Action is needed in two main areas in order to bring about such widespread behavioural change.

Firstly, residents and businesses need to be made aware of where the challenges lie as regards current mobility: this is known as Mobility Management. This initiative aims to influence journeys and modes of transport before people set out. This work is linked to factors such as information campaigns, with a purpose and objectives, when we physically upgrade our infrastructure, various campaigns aimed at encouraging sustainable travel, improved weather protection and storage facilities for bicycles/box bikes, campaigns aimed at parents, guardians, children and schools so that fewer children are given lifts to school, etc.

Secondly, the physical infrastructure needs to simplify and improve matters for sustainable modes of transport to a greater extent than is currently the case as they compete to provide a better alternative to cars. They have to be convenient, fast and flexible so that the advantages of making the right choice outweigh the disadvantages of choosing queues, parking challenges and congestion. This involves developing clean bus lanes, providing signal priority at junctions, rerouting public transport, keeping pedestrian and cycle paths separate, freeing up space for what are known as cycle superhighways, creating safe and welcoming pedestrian routes and focusing on mobility as a service, for example.

Given these two areas, development will involve finding a balance of measures using both stick and carrot in order to bring about behavioural change. For instance, the issue of parking is hotly debated as this is an inefficient use of space and creates major challenges in respect of aspects such as city centre accessibility and a lack of space for development operations and urban development. The parking guidelines adopted in 2016 is currently being revised as part of the upcoming mobility strategy.

Climate-smart mobility is based on planning and development according to the HYR model.

- Promoting Health
- Efficient Use of Space
- Resource-Efficient

As regards long-distance travel, the geographical location of Kalmar, a number of major international companies and a growing university place stringent demands on efficient and reliable transport, both nationally and internationally. Kalmar municipality and Region Kalmar County are pushing to increase access to passenger transport by rail and long-distance coaches. However, Kalmar Öland Airport, the region's airport, remains a key stakeholder when it comes to meeting these needs. To keep Kalmar attractive while also achieving the climate goals, Kalmar Öland Airport is working together with Kalmar municipality, Region Kalmar County, Region Gotland, the Green Airport project, Swedavia and the Swedish airlines to achieve the following goals:

- Become fossil-free in their own operations by 2025.
- Have an infrastructure in place in Kalmar for commercial electric aviation by 2027
- Have fossil-free scheduled flights in place by 2030

In 2024, Kalmar Öland will be extending its cooperation with 26 other regional airports as part of the Green Airport 2.0 continuation project, with emphasis on:

- The climate transition for aviation and how aviation and airports can help to drive regional development. This also includes looking at how airports should be prepared to accommodate new, fossil-free aviation so that the regional airport does not become the crowded sector.
- The role and importance of airports as regional hubs in a future travel and transport system that is sustainable.
- The potential of airports to provide spaces for a number of socially important functions, such as energy efficiency and energy production (solar power in the large spaces available), testing and demo environments for research and the business sector, hubs for tourism, etc.

3.10. Reporting and monitoring

Kalmar's environment and climate work forms an integral part of the municipality's regular system for management and monitoring of operations. Environmental goal managers report the status in Hypergene once a quarter so that particularly important issues can constantly be monitored and prioritised. The status of adopted

activities and key performance indicators, as well as the assignments assigned to the municipal director in the operational plan and budget, are all followed up.

A lot remains to be done in terms of monitoring actual reductions in the municipality's climate-related emissions calculated in kg of Co2. As described in section 3.5, work on climate calculations is ongoing and will continue in 2024. However, Kalmar is seeking support from others and, in the long term, perhaps a common digital tool that enables quarterly monitoring to be performed in a similar manner to when regular financial systems are used at present to produce quarterly reports on how the municipality's organisations have performed in relation to the financial budget for the year. Otherwise, the Climate City Contract will be monitored in accordance with the Viable Cities guidelines in section 7 below.

4. Viable Cities' commitments

The Viable Cities innovation programme is being conducted in broad collaboration in order to contribute to the transition to climate neutral cities by 2030 as part of the Swedish commitment to meet the goals of the 2030 Agenda and the Paris Agreement. This includes acting as international pioneers in the transition for cities.

Viable Cities is working with a wide range of stakeholders across academic disciplines, industries and sectors of society. It links outstanding research environments with enterprises of all sizes across a range of sectors, as well as public and civil society organisations.

Viable Cities will promote the following as part of its role as a strategic innovation programme:

4.1. Coordination of Climate City Contract 2030

Accelerated mobilisation in respect of the transition on a local, national and international level is now taking place using Climate City Contracts as a tool. This requires more of an ability to coordinate the efforts and go on developing the contracts in order to achieve upscaling, broadening, replicability, prioritisation and more effective coordination of meetings and dialogues between stakeholders.

That is why the Viable Cities programme office is developing a coordination function for Climate City Contract 2030 in Sweden so as to further support the Climate City Contract process, the commitments of agencies, municipalities and other relevant stakeholders being developed and refined step by step. This is being done in parallel with implementation and scaling to drive the transition more effectively. The coordination function will support the building of stakeholders' collective capacity for

transition from knowledge to implementation and develop the Climate City Contract to the next level – in a local, national and international context.

The coordination function aims to create better opportunities for municipalities and stakeholders to benefit from and manage at a local level the comprehensive policy packages at EU level that result from the European Green Deal (such as Fit for 55 and the Taxonomy Regulation for sustainable investments).

4.2. Smart policy development

Viable Cities intends to create expertise support in respect of policy and regulations with related initiatives in respect of smart policy development. This will involve providing the municipality with more of an overview of current and future Swedish and European legislation, rules and standards of relevance to the climate transition of cities (such as the Fit for 55 policy package). It will also include process support for amending regulations and standards to facilitate climate transition in practice. This will link to agencies' commitments (section 5.1) and development work on system demonstrators (see section 6).

4.3. Innovation

Viable Cities intends to develop its role as a pioneer and intermediary (linker of systems, manager of gaps, crosser of boundaries) in order to reinforce the coordinating, mobilising and facilitating efforts in the emerging ecosystem for the Climate Neutral Cities mission, offering a good life for all within the boundaries of our planet.

Viable Cities will contribute competence networks and process support to make it easier for the municipality to implement innovation that accelerates climate transition. This will include engaging other strategic innovation programmes in the further development of Climate City Contract 2030. This is particularly applicable to mobility, energy, the built environment, circular economy, health and digitalisation. Working on the basis of the partnership agreement with the Drive Sweden strategic innovation programme on climate smart mobility, collaboration will be developed further with both cities and agencies in this respect, not least with the Swedish Transport Administration.

4.4. Coordinated funding

Viable Cities will be supporting the municipality's need for climate transition funding and promoting cooperation and synergy between agencies and other stakeholders funding climate transition and sustainable urban development in the following ways.

- Viable Cities will go on working with the 23 cities and six agencies involved in Climate City Contract 2030 on developing forms of funding linked with this.

- Viable Cities will cooperate with the Swedish Agency for Economic and Regional Growth as the managing authority for the European Regional Development Fund in Sweden and the initiatives earmarked for sustainable urban development with a view to creating synergy with Climate City Contract 2030.
- Viable Cities will be working together with the agencies to develop work on coordinated funding by means of various ongoing initiatives in respect of sustainable urban development: see 5.3 Coordinated funding.
- Viable Cities will be continuing to develop forms of climate investment plans for cities with a view to supporting all cities as part of the Climate Neutral Cities 2030 initiative.

4.5. Interaction with the EU's Climate Neutral Cities mission

Viable Cities is working in close cooperation with the support structures that are being built around the EU Climate Neutral Cities 2030 mission – both a platform for implementation of the EU mission, NetZeroCities, and CapaCITIES, a network of national nodes such as the Driving Urban Transitions (DUT) partnership programme. At EU level, closer interaction and synergies with the sister mission "Adaptation to Climate Change", as well as with the proposed "New European Bauhaus" mission, are also being discussed.

5. The agencies' commitments

The agencies are committed to working together within the scope of Climate City Contract 2030. In this way, the agencies will contribute to the purpose of the mission-driven effort to make the transition to climate neutral cities by 2030 with a good life for all within the boundaries of our planet.

In 2024, the agencies will go on developing supporting structures and new ways of working for a more coherent, strategic and learning development process. The Sustainable Cities Council (Rådet för hållbara städer) acts as a framework and strategic forum for collaboration between agencies, the Swedish Model for Sustainable Development (Svensk modell för Hållbar utveckling) as an operational platform for collaboration between agencies, and Climate City Contract 2030 as a joint innovation and test lab for the 23 cities and agencies.

As part of this, the innovation teams at the Climate City Contract agencies will hold joint responsibility for driving the following innovation processes: Policy labs (5.1), System demonstrators (5.2) and Local portfolio analysis (5.3). This work also involves participation in the Transition Lab facilitated by Viable Cities. In 2024, the agencies intend to focus in particular on the development of Climate City Contract 2030 as an

innovation in governance for the Climate City Contract Arena, the meeting place for dialogue workshops between municipalities and agencies (see 6.1).

The agencies commit to continue their joint efforts in respect of the following developments in 2024 in order to support municipalities' climate transition:

5.1. Smart policy development

The agencies are working together with the municipalities to identify and contribute to development towards more appropriate regulations and other policy instruments for sustainable urban development and climate transition, and also to increase understanding and knowledge of existing regulations. The process will continue to be based on proactive dialogue and mutual learning, focusing on the development needs of municipalities in an accelerated climate transition.

In 2024, work will continue with policy labs in one or more of the challenge areas identified: inclusive mobility that promotes health, land use and land allocation, energy planning and energy streamlining, and circular resource and material flows. Joint development and planning efforts are ongoing through collaboration and dialogue in order to clarify policy challenges and identify key stakeholders, as well as ensuring the transition potential of policy labs.

5.2. Funding for research, innovation and development

The agencies are funding research, innovation, development and system innovation activities that support more rapid climate transition. The agencies' support is aimed at various types of research, innovation, application and demonstration and, to some extent, investment funding. Funding is provided through open calls for proposals and other forms such as, for example, client networks, stakeholder networks and innovation procurement[2].

In 2024, the agencies are committing to go on developing and funding new types of initiatives, such as: System Demonstrators for Climate Neutral Cities (see 6.2 for more information) and the Urban Twin Transition Center for the digitalisation of cities.

5.3. Coordinated funding

The agencies are constantly developing coordination in respect of ongoing initiatives in the field of sustainable urban development and climate transition so as to create better advance planning and comprehensive information.

In 2024, the agencies are intending to deliver aggregated output data from some of the agencies' funding to all 23 municipalities, based on the innovation process on methodology development for local portfolio analyses that was conducted in 2023.

[2] See pressannouncement from the Swedish Internet Foundation (Swedish)

The innovation work will also continue in 2024 with a view to improving the quality and coverage of data supplied, and by means of one or more in-depth projects in collaboration with certain interested municipalities in order to streamline the process and increase the benefits for recipients. The long-term goal of the portfolio analyses is to assist in efforts relating to cities' climate investment plans.

Hållbarstad.se is the joint website of the Sustainable Cities Council. Here, the agencies have undertaken to regularly publish information on funding opportunities and calls for proposals, as well as collective knowledge support from all participating agencies involved in the Sustainable Cities Council[3].

5.4. Participation in European sustainable cities initiatives

The agencies are part of and working with a number of European initiatives to support the development of sustainable cities and communities.

Efforts to support Swedish participation in the Horizon Europe 2021–2027 research programme include contributing to the formulation of activities and calls for proposals and providing information and advice to stakeholders who are planning to participate in applications regarding various European initiatives. The agencies are also cooperating on the implementation of the EU Regional Development Fund 2021–2027 with initiatives for sustainable urban development.

The agencies are continuing to participate in the Driving Urban Transitions to a Sustainable Future partnership, where calls for proposals and other activities in respect of sustainable urban development will be of relevance in the next few years, as well as the European Commission's "New European Bauhaus" initiative,[4] European Urban Initiative (EUI)[5] and Urbact[6].

The agencies are also helping to develop support functions for the cities selected for the 100 Climate Neutral Cities mission. One example is the "CapaCITIES" programme[7]. CapaCITIES is being used to initiate and reinforce national change processes in order to establish national networks and governance structures.

[3] The Swedish National Board of Housing, Building and Planning, the Swedish Energy Agency, the Public Health Agency, Formas, the county boards, the Swedish Agency for Participation, the Swedish Environmental Protection Agency, the Swedish National Heritage Board, ArkDes (the Sweden's national museum for architecture and design) the Public Art Agency Sweden, the Swedish Association of Local Authorities and Regions, the Swedish Agency for Economic and Regional Growth, the Swedish Transport Administration och Vinnova.

[4] New European Bauhaus highlights the importance of aesthetic, social and cultural assets in the green transition.

[5] The European Urban Initiative is a hub for sustainable urban development at EU level. The EUI aims to offer support to cities to improve and increase their capacity when it comes to formulating sustainable urban development strategies, policies and projects. (urban-initiative.eu)

[6] Urbact is a European cooperation programme for exchange and learning in the field of sustainable urban development, Swedish Agency for Economic and Regional Growth.

[7] The Swedish Energy Agency and Viable Cities are participating.

6. Strategic development projects for 2024

The strategic development projects are key accelerators for the emergence of an ecosystem relating to the Climate Neutral Cities 2030 mission and provide a common platform and arena for collaboration and learning.

The following strategic development projects will be conducted in 2024 within the Viable Cities Transition Lab in collaboration with other municipalities, with a view to further developing the content of Climate City Contract 2030 during the upcoming revision of the contract.

6.1. Governance

Developments in climate transition governance, both at local level and between local, national and even EU level, are fundamental to broader mobilisation and more effective systemic changes. This involves coordinating and leading different stakeholders at different levels with a view to accelerating the climate transition and slowing climate change so that a sustainable future can be built. Governance refers to the process and structure of governing, managing and regulating an organisation, society or system. It considers how decisions are made, how authority and responsibilities are allocated, and how rules and guidelines are maintained and followed. This is a complex process involving political, economic, technical and social aspects, which in turn requires cooperation and commitment from a wide range of societal stakeholders.

Mobilisation through Climate City Contract 2030 has proven to be successful and will go on being developed in order to further reinforce, scale up, broaden and accelerate the transition work. Clearer needs orientation/prioritisation and stricter commitments are required from several quarters: from the national agencies and the municipalities, and also linked to the Viable Cities role/commitments.

The Climate City Contract is a new and innovative governance tool that is building a long-term strategic process from local to international level on the basis of the collective mission of achieving sustainable and climate neutral cities by 2030. Commitments from cities, agencies and other stakeholders are revised and refined every year, and implementation takes place in interaction between the public sector, the business sector, the academic community and civil society stakeholders. The whole process is building ever stronger mobilisation of ecosystems of stakeholders and initiatives and constantly reinforcing the collective capacity for faster transition. This is a multi-level governance perspective that has also acted as an international role model when it comes to mobilising cities in a broad partnership between enterprises, the academic community, the public sector and civil society, implementing the EU's "Climate Neutral and Smart Cities" mission, which is aiming to achieve 100 climate neutral cities (municipalities) in Europe by 2030. Being the

first to set up Climate City Contracts makes Sweden a pioneer, leading the way for other European countries and the European Commission. This, in turn, will strengthen the Swedish business sector's ability to take its place and contribute to the global transition.

In the run-up to 2024, there is still a major need to develop a more in-depth understanding of what transformative governance involves and how municipalities and cities can work with it in practice. Collective analysis support for Climate City Contracts will be developed further using experience and insights from the initial steps. This work has to be done in close cooperation between Viable Cities, agencies and municipalities. This work will be coordinated by the programme office, which will ensure stronger emphasis on analysis and monitoring in the Climate City Contract Arena in 2024.

6.2. Climate investment plans

A basic tenet of mission-driven innovation is that the state and public organisations at different levels of society play an active role in co-creating and reshaping markets in interaction with the business sector and other societal stakeholders such as the academic community and civil society.

Climate investment planning is a crucial part of the transition in a municipality or from a broader perspective. Such planning makes it possible to understand what measures the various stakeholders in the city – the municipality and other stakeholders – need to implement, how these measures can be implemented in a manner that is economically viable, and which financial instruments can be used to raise the capital necessary for the transition. On average, the municipality itself is estimated to have control over about 15 per cent of the investments needed. That is why a series of stakeholders need to be involved, including citizens, civil society, enterprises (including the financial sector), the academic community and public organisations.

Climate investment plans as a key part of the work on developed governance for the mission, and in 2024 we will be focusing on climate investment plans in a number of areas; analyses and tests on how climate investment plans can be linked to regular decision-making processes, including roadmaps for climate neutrality at city level, analyses of necessary climate investments in areas with a major impact on climate emissions, such as heating/cooling, mobility, food, etc., economic analyses of multiple benefits of climate transition, such as where climate transition can both help to save money and provide quantified benefits such as better health, more jobs, security, etc., how sustainability indicators can be incorporated more systematically into commercial management and contract management

In 2024, the Viable Cities financial dashboard will undergo further development and incorporate the investment plan page, financial indicators and funding flows provided by different national agencies (see section 5.3). The functions of various financial instruments will be mapped, and a number of learning cases will be launched in areas where financial roadmaps are being developed. There will also be a developed collaboration with investors in order to discuss how to mobilise private funding for climate neutral cities.

The work on climate investment plans in Sweden is closely linked to what is happening within NetZeroCities, the platform for implementing the climate neutral cities mission at European level.

6.3. Competitiveness through transition

Strong mobilisation for the transition to climate neutrality may provide the conditions for enterprises in Sweden to develop new business strategies and entirely new markets, which in turn will provide competitiveness by driving a transition to a climate neutral, sustainable society. This is crucial for Sweden's ambition to be the world's first fossil-free welfare state and our climate policy framework. Enterprises play a key role in the climate transition; as major emitters of greenhouse gases, but also as providers of solutions for climate transition and climate change adaptation.

In 2024, Viable Cities is joining forces with the Climate Competitiveness initiative to explore – together with a range of other stakeholders – what systemic changes can accelerate collaboration between municipalities and the business sector in order to achieve the Climate Neutral Cities 2030 mission with a good life for all within the boundaries of our planet Collaboration with the agencies signing the Climate City Contract is a key aspect of this work so that policy change can be driven. The initiative is targeted primarily at the 23 cities signing Climate City Contracts for 2030, with the objective of creating knowledge that can be used in all Swedish municipalities.

The aim is to focus jointly on key areas of activity linked to the cities' transition journeys, where enterprises are mobilised and systematically engaged. One important element in this work is to reinforce one another in handling the opportunities and challenges presented by the EU's "Fit for 55" programme. Examples of areas of activity include procurement, skills supply, business development and establishment. The work includes reviewing the chances of using municipal policy documents such as procurement policy, business programmes and ownership directives for municipal companies in order to drive development. In its work, Viable Cities also engages with business-oriented organisations and initiatives at international, national and regional level where fair and inclusive transition is a key aspect.

6.4. Citizen engagement

Current societal challenges mean that a number of crises coincide with the climate crisis: the pandemic, the war in Ukraine, crises in respect of energy, food, raw materials and critical minerals, biodiversity and demography. These challenges are exacerbated by the fact that we are also experiencing a democratic development where a growing proportion of the population feels excluded.

This increases the need for initiatives aimed at inclusion and putting citizens at the centre of the transition to a climate neutral, sustainable society through initiatives such as new forms of citizen involvement (such as citizens' councils) and the development of attractive living environments (such as New European Bauhaus) and policies for the designed living environment. It is necessary to make the most of citizens' knowledge and expertise with regard to the decisions that affect their lives, and these decisions must be supported by the vast majority so that action and change can be implemented at the pace and to the extent required.

There will be further development of cooperation between cities, agencies and other stakeholders in 2024 in order to pave the way for citizen engagement in the climate transition; not least by developing new forms of citizen involvement in local Climate City Contracts and interaction with European initiatives in this respect.

A number of learning cases, tests and initiatives in respect of citizen participation will be mobilised in 2024 with a view to building on empowering citizens so as to accelerate the climate transition.

6.5. System demonstrators

System Demonstrators for Climate Neutral Cities is a strategic development project under Climate City Contract 2030. The system demonstrators are expected to play an essential role in the ability of cities to accelerate the transition, raise awareness and create plenty of engagement on a local, regional, national and international level.

The initiative focuses clearly on mission-oriented innovation, and clearly emphasises the importance of a systems perspective in the transition process. A portfolio approach, where a number of actions, initiatives and experiments combine to form a larger whole, is an important element in this form of intervention. The system demonstrators are based on key areas of Climate City Contract 2030 and are intended to assist with the development of the contract on the basis of insights from the work.

Viable Cities and the agencies undertake to help raise the profile of the system demonstrators in key contexts at national and international level, and to capitalise on the insights from the system demonstrators with a view to facilitating upscaling. All

Climate City Contract 2030 municipalities undertake to capitalise on the insights from the system demonstrators with a view to facilitating upscaling.

6.6. Climate Neutral Cities 2030 mission on an international level

In October 2021, the EU launched five missions for a new and innovative way of working together and improving people's lives in Europe and beyond. These five missions aim to tackle major societal challenges such as health, climate and the environment, and set ambitious goals with deadlines to be achieved by 2030. One of these is 100 Climate Neutral and Smart Cities by 2030 (known as the Cities Mission), which is a key element in delivering the European Green Deal with a view to making the continent climate neutral by 2050. This will involve significant reinforcement of Swedish efforts on the mission of achieving climate neutral cities by 2030 and using Climate City Contract 2030 as a tool for this.

There will be continued mobilisation and development in 2024 in order to reinforce the link between Swedish and European efforts on the Climate Neutral Cities 2030 mission. This is taking place by means of a series of initiatives involving cities, agencies and Viable Cities programmes. Examples include NetZeroCities (a platform for implementing the Cities Mission, with development work on aspects such as Climate City Contracts and Climate Investment Plans), the Driving Urban Transitions partnership (with research and innovation projects focusing on 15-minute cities, energy-positive districts and the circular urban economy) and CapaCITIES (which is developing national support platforms similar to Viable Cities in a number of countries in Europe).

At EU level, closer interaction and synergies between the Cities Mission and its sister mission "Adaptation to Climate Change", as well as with the "New European Bauhaus" initiative, are also being discussed.

Launched by the European Commission in January 2021, the New European Bauhaus initiative links the European Green Deal with our built environment. In the Cities Mission implementation plan, the European Commission points out that EU Climate City Contracts will enable participating cities to integrate the values and principles of the New European Bauhaus initiative in their climate neutrality plans and reinforce them. Work on the New European Bauhaus is taking place in collaboration with the government assignment awarded to the Swedish National Board of Housing, Building and Planning (Sustainable Cities Council, Rådet för hållbara städer) aimed at coordinating Sweden's participation in the New European Bauhaus.

7. Joint efforts on monitoring, evaluation and updating

Viable Cities and the municipality have agreed to conduct annual monitoring of the municipality's performance within the framework of Climate City Contract 2030. Viable Cities will provide documentation annual monitoring at municipal and national level.

7.1. Key updates for the municipality

Kalmar's Climate City Contract 2023 does not include any major changes in direction, as it is based mainly on the municipality's overall and long-term plans and strategies. That said, a number of specific steps have been taken in 2023 to increase the pace of Kalmar's climate transition, working on the basis of the 2022 Climate City Contract and the municipality's other focus documents. A few examples:

- *Establishment of biogas*: The municipality is working with two independent biogas production establishments (Gasum and Biokraft) in the municipality. Similar in terms of design and scale, around 125 GWh, investment costs of 650 million, the primary substrate is fertiliser. No investment decisions have been made, but work has begun on the detailed development plan and environmental permit.
- *Fossil-free contract procurement*: In 2023, the Land and Development Unit conducted a "Request for information" (RFI), i.e. a dialogue with 12 construction companies before the municipality gradually introduces requirements for fossil fuel-free transport for contract procurement procedures. 25 per cent fossil-free will be required by 2025, and this figure will then be increased by 25 per cent year on year until it reaches 100 per cent in 2028. The requirements will also cover works machinery in the longer term.
- *Climate-smart procurement of goods and services*: In 2023, Kalmar has prepared a project application within the Regional Development Fund focusing on funding for three years in order to lay a foundation for dialogue and pilot procurement procedures in close cooperation between clients, suppliers and awarding officers in the county of Kalmar.
- *The collaboration with Linnaeus University (LNU) has resulted in a number of collaborative projects in respect of climate*: Market analysis of biochar (Kalmar Energi); Survey of geological conditions for large-scale geothermal energy extraction in Kalmar/Nybro (Kalmar Energi); Demo plant at the Port of Kalmar with a future technology, with the aim of reducing CO2 emissions from the shipping industry (SBK); Climate-positive energy production by means of biochar in the county of Kalmar (Kalmar Energi); Science-based mobility measures for an efficient

climate transition (SBK); Smart metering sustainable electricity consumption in Kalmar (Kalmar Energi)

- *Funding has been awarded for the preliminary study entitled "Norrliden – A Million Programme for the Climate", and this project has commenced*: Kalmar municipality is joining forces with Kalmarhem AB, GodaHus and a number of private property owners with a view to accelerating the climate transition by developing the ability to collaborate and identify, prioritise and plan effective climate investments.
- *A proposal for a new mobility strategy*: The decision will be made in December 2023. One of the goals for this is that the percentage of travel covered by walking, cycling and public transport should account for at least 60 per cent of total travel by 2035.
- *Green Airport 2.0*: Kalmar Öland Airport is a member of the project consortium led by Svenska Regionala Flygplatser (SRF), which is mobilising airports for a Regional Fund Project part 2, with the following goals: At least 75 per cent of airports should be fossil-free; Test facilities for aircraft running on electricity/hydrogen are established at two airports at least; At least two new systems for automation or digitalisation of airport operations have been developed.
- *TaGe pop-up reuse container*: Kalmar municipality opened its first pop-up reuse container in the autumn of 2023. This travels from place to place in the municipality. TaGe allows residents to both drop off and collect items that can be reused, thereby helping to increase their lifespan and reduce waste.
- *Kalmar has been nominated for the 2023 "Laddguldet" award*: thanks to the following initiatives: Investments in charging stations; Goals and strategies for fossil fuel-free/climate-neutral and sustainable travel options; An almost 100 per cent fossil-free vehicle fleet and requirements for procurement procedures; Cooperation with car dealers and an annual green car fair; Carpooling; Electric flights and solar charging; Business charging stations shared with the general public; Establishment offering for private charging operators on district land. Laddguldet 2023 – Swedish 2030 Secretariat (2030sekretariatet.se)[8]
- *Pilot municipality for the Consumption Compass 2.0 project*: Kalmar will continue to be one of the pilot municipalities within the framework of the Stockholm Environment Institute's (SEI) development of the Consumption Compass. This tool estimates the climate impact of household consumption (climate footprint) at postcode level for all Swedish municipalities.
- *International cooperation on the reuse of construction and demolition materials*: In 2023, Kalmar has worked on the project concept entitled "FutureBalticBauhaus CO2 reduced" as part of an international project consortium led by Holebæk municipality in Denmark. If funding is awarded for the project, Kalmar will be

[8] https://www.2030sekretariatet.se/laddguldet/ (Swedish)

working together with GodaHus on demolition mapping, with emphasis on recyclable materials, and investigating the market criteria for a storage/sales location for recyclable materials in Kalmar.

7.2. Most urgent experiences for the municipality to share

In general, Kalmar has many good experiences of successful environmental and climate initiatives based on close cooperation between the municipality and the business sector. Examples of experienced gained in 2023 that it seems important to share include: The long-term cooperation with farmers and biogas producers in order to establish large-scale biogas production in the municipality. This is now well on the way to being realised. But also efforts to pave the way for an improved charging infrastructure. This is something that Kalmar Energi, the municipal energy company, has been working on strategically and in practice for a long time, and Kalmar municipality through its cooperation with car dealers, for instance, and an annual green car fair, by sharing the municipality's charging stations with the general public and an establishment offering for private charging operators on district land.

And finally, two areas where Kalmar is embarking upon new projects and initiatives and is keen to share experiences with others: "Norrliden – A Million Programme for the Climate" – A project that was recently awarded funding in which Kalmar municipality, Kalmarhem and a number of private property owners are initiating a partnership in order to identify, prioritise and plan effective climate investments in part of Norrliden, a Million Programme area. Climate-smart procurement – as regards goods and services in general, but also in relation to circularity and reuse of materials. Kalmar has been presented with the Ragn-Sells "Cirkulära förelöpare" (Circular pioneers) award for 2020 and is now planning for a three-year regional fund project focusing on provider dialogue and contract follow-up.

7.3. Key updates for Viable Cities

The work done by Viable Cities on facilitating the Climate City Contract process has undergone development in 2023. The Viable Cities programme has also prepared a new multi-year phase of the programme. Moreover, significant development work on climate investment plans has taken place and the new system demonstrator intervention has taken new steps. An EU-level process on Climate City Contracts has been established in the international cooperation on the mission and a number of Swedish cities have been successful in becoming involved in the work of the mission regarding climate-neutral cities with funding from Horizon Europe.

7.3.1 The Climate City Contract process

Work has continued in 2023 on developing the role of Viable Cities as a facilitator of the Climate City Contract process in interaction with the 23 cities and 6 government agencies that are signatories to date. The accelerated learning platform has

been further developed through the Viable Cities Transition Lab Forum, City Labs, Climate Breakfasts and a series of different formats for meetings between cities and government agencies and other stakeholders. Interaction with the signing government agencies has also been developed in order to further extend the Climate City Contract 2030 process. In parallel, work has continued in the 23 cities on developing different forms of local climate contracts as part of mobilising local transition arenas with companies, the public sector, the academic community and research institutes and civil society. Mobilisation at EU level with the 112 cities that are pioneers in the Climate-Neutral Cities 2030 mission has also involved a process of establishing Climate City Contracts with the participation of Viable Cities. Viable Cities perceives an increased need to create synergies and work on developing support for learning between cities and further developing interfaces between local, national and international levels. The aim of all this is to reinforce the collective capacity for transition.

7.3.2 Strategic efforts prior to new programme phase

Scaling up relevant initiatives in various ways for greater impact and to increase the pace of transition is a crucial element in Viable Cities' work going forward. It is also clear that further work needs to be done in a situation in which multiple crises coincide with the climate crisis. Extensive strategy work took place during the year in preparation for the next multi-year phase of the programme. In October, Viable Cities submitted an application to become one of the programmes under the new, mission-oriented Impact Innovation programme. In parallel, documentation is being submitted for the next phase as a strategic innovation programme in which an evaluation of the first six years of the programme has been completed. In various ways, Viable Cities has also provided input for the Government's forthcoming climate policy action plan and the forthcoming research and innovation bill and contributed to SALAR's planning[9] of how municipalities and regions can improve and intensify their efforts on climate change adaptation and reduced climate impact.

7.3.3 Strategic upscaling and acceleration initiatives

Continued development work on climate investments for the transition for cities has taken place both in Sweden and in European cooperation as part of the work on Climate City Contracts. Dialogue with relevant financial stakeholders has also been developed in this regard. Digitalisation efforts were also intensified during the year, and November saw the establishment of the Urban Twin Transition Centre in collaboration with Viable Cities. Work has also begun on preparing processes for enhanced citizen engagement/participation in order to create methods and insights that can be used by many cities. A Just Transitions graduate school was launched at Linköping University during the year, in cooperation with Viable Cities.

[9] Fair and sustainable transition for the climate - Proposal from SKR's program preparation for sustainable transition, SALAR, September 2023 (Swedish)

Lund University, in collaboration with Viable Cities, has also launched a Massive Online Open Course (MOOC): Cities, Climate and Change: Pathways and Opportunities. Work on storytelling and communication for transition has also undergone further development. The next step in developing a new form of intervention known as System Demonstrators has been taken with funding from Vinnova and Viable Cities for two system demonstrators: CoAct in Lund, which is focusing on both sustainable mobility and energy-positive districts, and SnabbSam in Stockholm, which is focusing on a fossil-free city centre. Other cities are keen to join in with these collective learning efforts. Fifteen feasibility studies have been funded as part of Viable Cities in order to explore how we can further energise the transition of cities in three respects: citizen engagement, climate investments and regional collaboration.

7.3.4 International alliances in respect of the mission

Efforts to mobilise cities and countries in respect of the mission, in which Viable Cities is involved in a number of ways (e.g. NetZeroCities, Driving Urban Transitions, CapaCITIES, Urban Transitions Mission), are continuing. An evaluation commissioned by the European Commission of the EU's work on the five missions[10] was published during the year. This concludes that the Climate-Neutral and Smart Cities 2030 mission (Cities Mission) has already achieved significant mobilisation to step up the pace of climate transition in cities. The evaluators highlight the fact that establishment of the Cities Mission was an important and timely initiative in order to address the "implementation gap" and the systemic challenges that individual cities' climate efforts could never handle alone.

Viable Cities has continued its efforts as one of many international NetZeroCities partners in order to facilitate the transition in the 112 cities (seven of which are Swedish). NetZeroCities, in dialogue with the European Commission, has formulated a Climate City Contract for cities throughout the EU as a tool to accelerate climate transition. Climate investments are a key element in this regard. As with everything else Viable Cities does, the ambition is for methods, tools and lessons learned to benefit many more cities as they make their transitions. Swedish cities have achieved success within the framework of NetZeroCities and been granted funding for a number of initiatives in order to reinforce their climate transition initiatives. Malmö, Uppsala and Umeå, for instance, have received funding as part of the Pilot Cities initiative (totalling around SEK 45 million); and Luleå (matched with Umeå) and Lund are just two of the cities that have been selected and matched with pilot cities under the Twinning initiative, which focuses on learning partners for transition.

New steps are being taken as part of the work that has been conducted at global level within the Climate Smart Cities Challenge for a number of years, and which involves a number of Swedish stakeholders, with a view to further developing the

[10] Alasdair Reid et al. Study supporting the assessment of EU Missions and the review of mission areas - Mission areas review report. 10.2777/61143, European Commission, 2023

work. This includes linking the four system demonstrators as part of the initiative with the two Swedish ones, and also working to mobilise capital. The partnership with UN-Habitat is key to this, and a dialogue is being conducted regarding broader cooperation with UN-Habitat on the basis of climate transition for cities. Similarly, a dialogue has been initiated regarding broader cooperation with the World Wide Fund for Nature (WWF) regarding climate transition for cities in Sweden and internationally.

7.4. Key updates for the government agencies

The agencies have worked jointly on four innovation processes in 2023 as part of Climate City Contract 2030. Four challenges have been identified for policy labs as part of Smart Policy Development. System demonstrators for climate neutral cities are being trialled in two cities. A local portfolio analysis method has been trialled and scaled up. Climate City Contracts as a model for developed governance have been analysed in depth.

7.4.1 Smart policy development

In 2023, a number of joint workshops with Climate City Contract municipalities and Climate City Contract agencies were organised so that development of more appropriate regulatory frameworks and other instruments could begin. Four challenge areas were identified, and these were mapped and investigated further with a view to making decisions to launch a number of "policy labs" in one or more of the areas identified. Representatives from the agencies continued working between the workshops, processing the data that emerged and planning for future work. All the work involved forms of exploration and learning, with everyone involved.

7.4.2 System demonstrators

The emphasis on system demonstrators for climate neutral cities has continued in 2023. The call for proposals for System Demonstrators for Climate Neutral Cities – Planning Phase took place, and two cities were awarded funding. This call for proposals will be seamlessly followed in 2024 by the call for proposals for System Demonstrators for Climate Neutral Cities – Implementation Phase, which will be open only to the same two cities that were awarded funding for System Demonstrators for Climate Neutral Cities – Planning Phase.

7.4.3 Local portfolio analyses

In 2023, the agencies have carried on developing a methodology for portfolio analysis of the agencies' overall funding to cities. The methodology was trialled in discussion with five of the municipalities during the year. The aim during the year has been to investigate applications in the municipalities and enable all 23 municipalities to scale up. The year's work and completed tests were presented and further developed jointly during the Transition Lab Forum in Kristianstad in the autumn.

7.4.4 Greater collaboration between agencies

In 2023, the agencies forming the Sustainable Cities Council have been granted funding from the European Regional Development Fund's National Programme to develop a more operational inter-authority collaboration platform. This collaboration platform has been named Svensk modell för hållbar urban utveckling, the Swedish Model for Sustainable Urban Development. The aim of this is to focus on the more operational efforts of the agencies and develop a coordinated and joint initiative to reinforce the municipalities' capacity for innovation. The Sustainable Cities Council decided to review in 2023 how the Council can be strengthened in its role as a strategic forum and provide a framework for the operational collaboration platform Swedish Model for Urban Sustainable Development and Climate City Contract 2030 as a joint innovation and test lab for the 23 cities and agencies, as well as other related initiatives identified. The aim of this was to increase synergies and learning between several of the agencies' related assignments and initiatives.

7.4.5 Climate City Contracts as a governance model

Developments in climate transition governance, both at local level and between local, national and even EU level, are fundamental criteria for broader mobilisation and more effective systemic changes. In 2023, collaboration between agencies – with analytical support by Vinnova – focused on governance issues in particular A strategic analysis project entitled "Klimatomställning av städer – en svensk modell för att öka takten i omställning" (Climate transition of cities – a Swedish model to increase the pace of transition) was conducted in close cooperation with Viable Cities, and with the active participation of both the agencies and the cities. From an operational perspective, it has been possible to devise the term "governance" for climate transition on the basis of practical experience from the last two decades. Governance is used when an authority needs to go beyond what it can directly control in order to realise a goal, which also involves systemic shifts from piecemeal operations to a holistic approach to public administration. In governance, the authority collaborates with the business sector, civil society and the academic community.

9. The contract

The Parties agree that these joint commitments, as formulated above, shall apply for 2024. The first version of Climate City Contract 2030 was signed in 2020, the second in 2021 and the third in 2022. The Climate City Contract is to be updated and renewed for each new year.

Climate City Contract 2030

Betweeen Kalmar municipality, the Swedish Energy Agency, Vinnova, Formas, the Swedish Agency for Economic and Regional Growth, the Swedish Transport Administration, the Swedish Environmental Protection Agency and Viable Cities.

Stockholm 2023-12-08 The Parties agree that these joint commitments, as formulated above, shall apply for 2024. The first version of Climate City Contract 2030 was signed in 2020, the second in 2021 and the third in 2022. The Climate City Contract is to be updated and renewed for each new year.

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Appendix 1 - Links to documents

Below are the links to the most relevant documents in relation to Climate City Contract 2030 for Kalmar municipality (may be in Swedish).

- Fossil fuel-free municipality action plan 2030
- Action plan for good water status
- Environmental accounts 2022
- General plan adopted 2023
- Kalmar's Carbon dioxide budget