

UBC cities on the path to the climate goals 2030

Insights, examples and tools

Report based on CDP Cities Questionnaire 2021 results

March 2022

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Profile of CDP

CDP is a global non-profit that runs the world's environmental disclosure system for companies, cities, states and regions.

Founded in 2000 and working with more than 590 investors with over \$110 trillion in assets, CDP pioneered using capital markets and corporate procurement to motivate companies to disclose their environmental impacts, and to reduce greenhouse gas emissions, safeguard water resources and protect forests. Over 14,000 organizations around the world disclosed data through CDP in 2021, including more than 13,000 companies worth over 64% of global market capitalization, and over 1,200 cities, states and regions. CDP is a founding member of the Science Based Targets initiative, We Mean Business Coalition, The Investor Agenda and the Net Zero Asset Managers initiative.

Visit [cdp.net](https://www.cdp.net) or follow us [@CDP](https://twitter.com/CDP) and on [LinkedIn](https://www.linkedin.com/company/cdp) to find out more.



2021 was yet another year in which the impacts of climate change were evident across the globe, from wildfires in Greece and California to flooding across Central Europe, Japan and East Africa. While the world emerges from the COVID-19 pandemic, we have a collective responsibility to put deep, concerted and tangible climate action at the heart of our economic recovery. We must act now to stop global greenhouse gas emissions, avoid new emissions, design resilient infrastructure and switch to renewable energy. Cities – especially UBC members reporting through the CDP-ICLEI Unified Reporting System – are a critical part of this new path forward. They must help halve global emissions by 2030, and set science-based climate targets to stay on the pathway of a 1.5°C temperature rise. 93% of cities are already at risk – they must put plans in place to adapt to the impacts of climate change, underpinned by a climate risk and vulnerability assessment (CRVA). But change cannot happen in silos. At CDP and UBC, we know the value of collaboration, and the benefits that come from working with actors across cities, states, regions, governments and business. This report shows how collaboration across all levels of government is mission critical to driving and implementing multi-level climate action.

Kyra Appleby

Global Director of Cities, States and Regions, CDP



I am proud to see UBC cities Arendal, Espoo, Helsinki, Lahti, Linköping, Turku and Växjö among the 95 cities on the CDP Cities A List 2021. A List cities are working effectively to contribute their fair share of emissions cuts and build resilient, healthy cities. The collaboration between CDP and UBC helps to raise ambition across the region. All cities need to build climate and nature into city master planning; set science-based targets in line with 1.5C and focus on key emissions hotspots, such as buildings, energy supply and transport system; understand their city's risks, and create a plan to adapt; increase nature-based solutions and collaborate with companies and investors; and finally learn from others. What works well in another city might be a success in yours as well. We invite every UBC city to talk to CDP so we can support your journey to become a net-zero, nature-positive city.

Mirjam Wolfrum

Director Policy Engagement, CDP Europe

Profile of UBC

UBC is a network of 70 cities and municipalities in the Baltic Sea Region (BSR) founded in 1991 in Gdansk, Poland.

UBC mobilizes the shared potential of its member cities for democratic, economic, social, cultural and environmentally sustainable development of the Baltic Sea Region. UBC works for the attainment of its vision of the Baltic Sea Region as a dynamic, innovative and attractive global growth centre, where the success is based on smart, green, resource-efficient and sustainable economic and social development. UBC vision sees the Baltic Sea Region cities becoming increasingly recognized as global forerunners in climate-smart development creating a high-quality living environment for their inhabitants.

UBC operates in several thematic commissions addressing such focus areas as culture, health, safety, smart development, environmental sustainability, urban planning and youth involvement. The member cities are located in all 10 countries from the Baltic Sea Region – Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Norway, Poland, Russia and Sweden. The joint vision of inclusive and sustainable UBC network and concrete directions to its implementation are included in the UBC Strategy 2022–2030 and the UBC Sustainability Action Programme 2030.

In 2016, UBC started a strategic cooperation with the world's leading organization on voluntary climate reporting, CDP, and many UBC member cities have already shown climate leadership by disclosing their climate related data through CDP, thus contributing to a more sustainable future of the region.



The EU set a very ambitious goal to become climate-neutral by 2050. Achieving this will require efforts on all fronts and governance levels from national to local. Even though cities are vulnerable to the effects of climate change, they are also uniquely positioned to take a leadership role in both mitigating and adapting to its effects. Cities are natural frontrunners to promote the objective of climate neutrality and to apply concrete steps leading to the climate resilience in the future. In recent years many UBC members have accelerated their efforts in cutting carbon emissions, and some have set very ambitious targets to become climate-neutral as early as 2030. Knowing that climate change will exacerbate the existing urban environmental management challenges in cities, UBC has committed to cooperate with CDP, the global climate change disclosure non-profit organisation, on regular and comprehensive measuring of cities' climate footprints and actions. It is very important for cities to have reliable and effective tools for regular monitoring of progress, benchmarking and managing positive transformation towards their climate goals where necessary. Therefore, in the coming years UBC aims to involve more member cities and encourage them to regular disclosure of their climate data, and to support stronger climate adaptation and mitigation efforts on the local level.

Agnieszka Ilola

Acting Head of Secretariat,

UBC Sustainable Cities Commission

Statement from UBC Sustainability Action Programme 2030

Climate change is affecting every region worldwide. Natural disasters like floods, storms and heat waves are increasing in all regions in the world, including the Baltic Sea Region and we can already see and feel the tangible consequences of climate change affect our cities, ecosystems, and environment. Climate change related effects and consequences travel across borders and their interconnected nature is evident, which calls for more structured response from all sectors of society.

According to the latest

**Intergovernmental Panel on
Climate Change (IPCC) Report,**

scientists are observing changes in the Earth's climate across the whole climate system and the report highlights the urgency of immediate, rapid, and large-scale reductions in greenhouse gas emissions.

Cities are key actors in making a change in the region, among other things by influencing national-level policies, implementing sustainable solutions in city development, and raising awareness among citizens. Even though many UBC cities are already forerunners in sustainable solutions, more ambitious climate goals and concrete actions are needed from UBC cities.

**UBC Sustainability Action
Programme 2022-2030**



Introduction

The cooperation of Union of the Baltic Cities and CDP begun in 2016 and ever since then a growing number of UBC cities has been disclosing their environmental data on a yearly basis. In the beginning of our cooperation there were only 6 UBC cities participating in the reporting under the CDP initiative. Now, five years later, that number has grown to 21 cities and despite the challenges brought by the COVID-19 pandemic and climate change, UBC cities continue to demonstrate their strong commitment to climate change adaptation and mitigation in our region.

In 2021, out of the 21 UBC cities reporting their climate related data on CDP-ICLEI Unified Reporting System, 1 was a first timer and a remarkable total of 7 UBC members made their way into the 2021 CDP A-List cities, amounting to over 26% of all European A-List cities. In UBC, we highly appreciate the great effort showcased by our member cities in these challenging times and look forward to seeing their future achievements as well.

The cities disclosing their data in 2021 were:

- **Aarhus** from Denmark
- **Helsinki, Turku, Porvoo, Lahti, Kemi** and **Espoo** from Finland
- **Rostock** from Germany
- **Riga** from Latvia
- **Klaipeda, Panevėžys** and **Taurage** from Lithuania
- **Arendal** and **Bergen** from Norway
- **Gdynia** from Poland
- **Linköping, Malmö, Trelleborg, Söderhamn, Umeå,** and **Växjö** from Sweden

This report is based on the publicly disclosed data by 21 UBC member cities. In total, there were 22 cities reporting, with 1 city opting to keep the data non-public.

Climate change mitigation is in the core of UBC's activities, guiding our everyday work. In 2007, the first UBC Resolution on climate change was adopted and ever since then, UBC has stayed committed to working towards a better climate. This year's report draws inspiration from our latest Sustainability Action Programme, which is published approximately every 5 years. The most recent one – the "UBC Sustainability Action Programme 2022-2030" looks into the longer timespan and outlines the goals for this decade highlighting the following topics:

- Water-smart cities
- Energy-smart cities
- Resource-efficient cities
- Biodiverse cities
- Mobility-smart cities

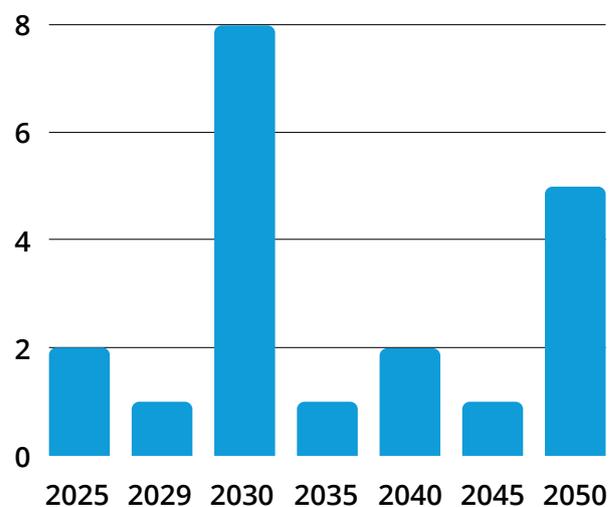
These topics represents the numerous projects UBC is involved in related to mobility, water treatment, urban planning, energy efficiency and innovation all over the Baltic Sea Region, contributing to the climate change mitigation work that is being carried out globally.

Sustainability goals and targets are also a big part of the everyday life in our UBC member cities. In 2021, all cities reported that sustainability goals are a part of their city's masterplan. Despite the challenging circumstances caused by COVID-19, 12 cities reported that the pandemic didn't have any

impact on their climate work. Others said that it in fact increased the emphasis on climate actions or that, due to distance work and digital meetings, decreased emissions were noticed in cities. On the financial side, only 4 cities reported an increase on available finances whereas 14 had no access to extra funds.

The ambitious climate goals of UBC member cities can be seen in their carbon neutrality goals, with most cities striving to become climate neutral already by 2030. In many cases, cities follow the national target year with some exceptions having set an earlier target. Additionally, several cities, including Riga, Aarhus, Helsinki, Turku, Arendal, Bergen, Umeå, Växjö and Malmö, are also involved in Race to Zero, which is a global campaign dedicated to halving emissions by 2030.

Climate neutrality goals of UBC cities



Water smart cities

Sustainable urban water management plays a crucial role in cities' development and the way they adapt to the impacts of climate change. Growing challenges in the form of population growth, urbanization, excessive water use, pollution, and increased occurrence of climate-induced emergencies often disturb the stability of the water flow cycle forcing cities to cope with severe water uncertainties. The adaptation to extreme weather events such as storms, floods, droughts, and heatwaves requires a holistic, integrated and knowledge-based approach to urban water resource management.

UBC Sustainability Action Programme 2022–2030

The conditions of water bodies in the Baltic Sea Region are tightly connected to the citizens' well-being in the region. That is why all UBC member cities are committed to restoring water quality in the Baltic Sea and reducing pollution by implementing the existing HELCOM water policy frameworks, such as the [Baltic Sea Action Plan](#), and other relevant recommendations. Our cities also apply integrated management principles and utilize cross-sectorial cooperation to connect water services with other urban services. In the future, more member cities will apply water-centered urban planning, increasing the use of integrated stormwater management approach, nature-based solutions and blue-green infrastructure. Innovations, tools and best practices on sustainable water resource management are also developed and exchanged actively within our network through the [Baltic Smart Water Hub](#).

Insights from UBC cities

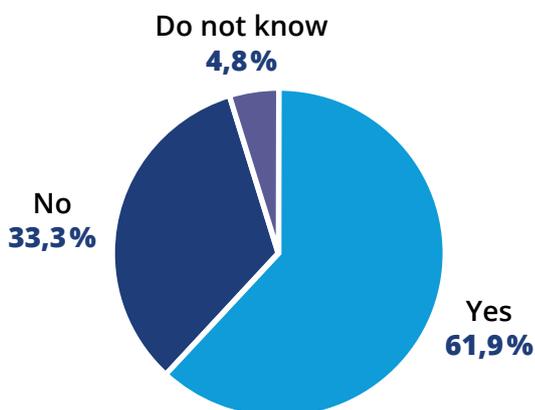
Many UBC cities indicated being dependent on ground waters for providing the water supply, which makes the **protection of the groundwater** of high priority for these cities. One of the main threats identified by the cities was higher groundwater levels caused by **increased rainfall** and **precipitation**, and lower levels caused by **drought**. Other threats included **contamination** caused by heat, pollution in general, **floods** and algal bloom as well as **interruptions** caused by energy supply issues or failure of infrastructure. In addition to ensuring high quality drinking water supply for residents, cities also highlighted their efforts in **wastewater** and **storm water management**. **Prevention of chemical leakages** and **improving energy-efficiency** in water management were also reported to be of high importance in the future. 80% of the UBC cities reporting in 2021 have a publicly available Water Resource Management strategy or intend to take up one in the upcoming years.

Examples

Within the disclosure process, cities were invited to highlight specific current and future risks to their urban water security. 61.9% of the cities answering stated that they are aware of the water-related risks, whilst 33.3% were not. 4.8% could not answer the question. Some reasons identified why cities might not be aware of any risks included for example having old local waterworks in reserve while the water supply is generated artificially as infiltrated groundwater from the river. Another reason was having relatively new and regularly maintained infrastructure with the water supply being constantly monitored.

10 cities out of 21 (47,6%) were able to evaluate the current and future water-related risks. Out of the respondents, 40% highlighted inadequate or **ageing water infrastructure** as the biggest risk driver. 30% mentioned **drought** as one of the main risk drivers.

"Are you aware of any substantive current or future risks to your city's water security?"



Anticipated timescale:

- 1 – current
- 2 – short-term (by 2025)
- 3 – medium term (by 2050)
- 4 – long-term (after 2050)

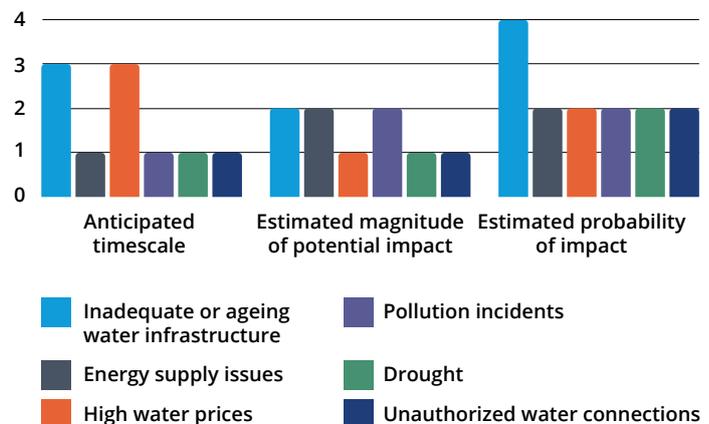
Estimated magnitude of potential impact:

- 1 – less serious
- 2 – serious
- 3 – extremely serious

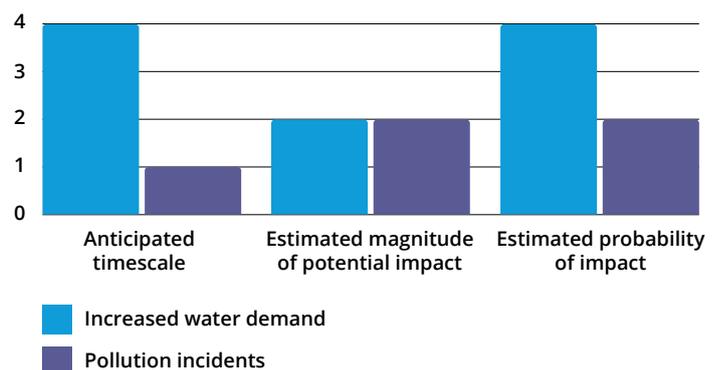
Estimated probability of impact:

- 1 – do not know
- 2 – low
- 3 – medium-low
- 4 – medium
- 5 – medium-high
- 6 – high

Example: City of Riga's water security risk profile



Example: City of Porvoo's water security risk profile



Here are some examples on the actions cities are taking to reduce the risks to their water security:

“Replacement of wires that cause large leaks and irrigation restrictions during drought. The most critical sewage pumping stations have protection against backflow and 50 – 100 critical subscribers and business subscribers are required annually to install meters with sufficient protection against backflow. Within five years, 90% of private subscribers will have installed water meters with non-return protection. We have also ensured arrangements for delivering emergency water to the hospital via an external tank, emergency-power supplies at the largest pressure boosting stations, SMS/ telephone notification to the inhabitants and routines for information via several information channels.”

City of Arendal

“Annual investments in water network rehabilitation and optimization processes continue. Utility’s work functions are reviewed to gain increase in efficiency and decrease of expenses. The preparation is adapted with the right purification steps, to avoid new waterborne, pathogenic microorganisms. In the case of emergency city’s water supply sources can be diversified, varying with several underground sources and one surface water source. Switching to the backup power lines or diesel generators is also possible if required. EU funds are used to expand centralized water and wastewater system, providing availability of services, but not connections, which is why changes in legislation for municipality’s co-financing were made and connection constructions continue.”

City of Riga



Water-related tools and practices from UBC cities

- **Baltic Smart Water Hub** – A portal launched by the UBC Sustainable Cities Commission for the UBC member cities to exchange on their successes and experiences in developing smart water management. The portal operates along all water sectors (stormwater and wastewater, fresh water and sea water), and provides tested practices, solutions, tools, as well as piloted innovations from around the Baltic Sea Region and beyond.
- **Policy recommendations for implementing the integrated stormwater management in the Baltic Sea Region** – were developed within the BSR WATER platform, introducing the recommendations for implementing sustainable and integrated stormwater management in the BSR on the basis of accumulated knowledge and practices of those forerunner BSR cities that have already obtained experience, understanding and practical skills within the field of natural, holistic and sustainable urban stormwater management.
- **Integrated Stormwater Management Guidelines** – Guidelines on integrated stormwater management that can be applied to many BSR cities created by the iWater project team.

Best local practices introduced in UBC TALKS

- **Helsinki** ensures **sustainable and safe stormwater management** (webinar)
- **Rostock** shares their secret to a **successful coastal cleanup campaign** (webinar)



Energy-smart cities

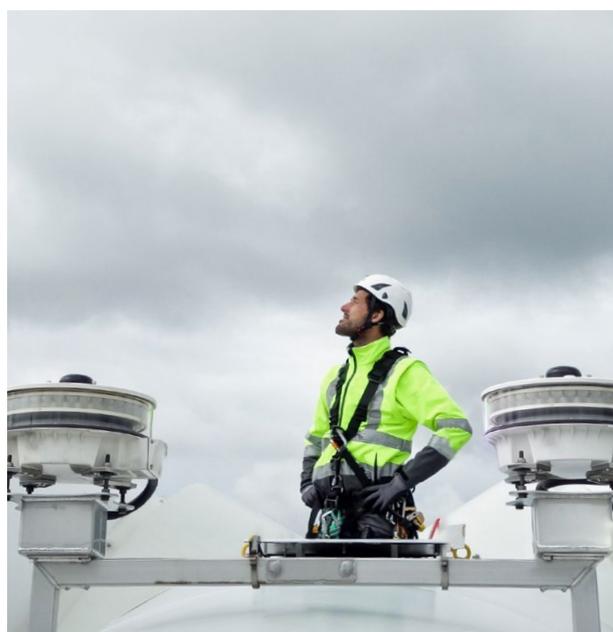
To reach carbon neutrality goals regarding energy-related targets – the reduction of consumption of fossil-based energy on both public and private sectors is needed. Energy efficiency should be increased in all fronts – production and consumption for individuals, public and private sectors, by city's own operations as well as community and district levels.

UBC Sustainability Action Programme 2022–2030

UBC cities are forerunners in smart energy planning. Our members have already taken a range of actions to promote energy efficiency, for example by preparing and implementing sustainable energy and climate action plans, also known as SECAPs. UBC cities aim at becoming forerunners in piloting, adopting, promoting and exchanging on new solutions such as local energy production. The cities also strive to be role models in including life cycle assessment as part of public building projects and to build up and promote energy positive districts in line with EU goals.

Insights from UBC cities

All cities reporting in 2021 already have or are in progress of obtaining a renewable energy target. To achieve this target, UBC cities have invested in local energy production including **solar power** and **wind power, hydropower,** and **geothermal energy** sources, and some are increasingly implementing biofuel in their energy mix. Furthermore, 17 cities reported having a target to improve their energy efficiency, 2 reported that this target was still in progress and 1 reported not knowing if such target has been set. The high level of ambition in UBC cities was also highlighted by the fact that many cities reported to discard the use of coal already by 2025 and **increasing the share of renewables** by several tenfold before 2030.



"Does your city have a target to increase energy efficiency?"



“The plan states that our energy consumption will decrease by at least 20% per person by 2020, and by a further 20% by 2030. In the overall vision for the built environment in our city it is stated that in the future, the city will use its harbor area as a logistic hub, with industrial symbiosis, where companies jointly utilize excess energy and material flows in a circular economy. By 2030 the whole municipality shall run on 100% renewable and recycled energy.”

City of Malmö

“Wind power covers 40% of the energy that the city-owned energy company's sells in 2024. In addition to wind power, the energy company owns shares also in waterpower and bioenergy and all the energy sold by the company is emission free. The company utilizes waste heat and follows up closely possibilities that geothermal heat brings to district heating. We create a dense and energy efficient community with the help of urban planning. The city also promotes lifecycle efficiency of the buildings. This includes, among others, energy production and exploitation of renewable energy in the buildings.”

City of Porvoo

“In 2030 our city will become the leading region in our country in the field of renewable energy use and production (sea, wind, geothermal energy), especially in the development of production in the open sea, the depths of the earth as well as using biomass for energy.”

City of Klaipeda

“The construction sector in our city must be fossil-free before 2030, and energy use in new and existing construction is streamlined. In 2020, fossil oil will not be used in homes or as primary energy in larger buildings. 70 percent of all buildings in our city will have their own energy production in 2030. The district heating in our city must be fossil-free by 2020 and solar energy production (solar cells and solar collectors) corresponding to 200W will be installed per capita by 2030 (total 10 MW). Use of electricity in our city will not increase until 2030 despite population growth, phasing out fossil fuels for heating and increased use of electric vehicles.”

City of Arendal

Examples

“Energy innovation is one of the main sectors that the city is concentrating on for driving future growth. The city’s LNG cluster is developing a project for the use of geothermal energy in the LNG. It is also innovating when it comes to the use of LNG cold energy for data centers, refrigerators, or the pharmaceutical industry.”

City of Klaipeda



“Trelleborg participates in the EU-supported initiative “Nordic Hydrogen Corridor”: one of the eight filling stations for roads in Sweden will be built in Trelleborg. The investment is part of a long-term plan for Trelleborg to develop into an attractive development-oriented municipality with urban development as the engine. This goal is supported by implementing hydrogen in the energy system in Trelleborg municipality and therefore becoming a pioneer in the hydrogen field. PV installation for oxygen and hydrogen production will be made to develop buildings as educational examples for sustainable energy systems. An offshore wind farm is assumed to be an important prerequisite for large-scale hydrogen production, which can cover the needs of increasing proportion of fuel cell trucks, trains and ferries. Hydrogen can also balance the electricity grid or be used industrially and excess heat from hydrogen production can be utilized as well.”

City of Trelleborg

Energy-related tools and practices from UBC cities

- **Smart Energy Management Self Audit (SEMSA) concept and self-audit tool** – A self-auditing tool developed in the IWAMA project that helps to measure the effectiveness of the process applied at wastewater treatment plants and outline the potential for energy improvements of these plants.
- **Tauragė region** hosts the largest wind farm in the Baltic countries and is home to the country's second largest hydropower plant. The city decided to specialize in renewable energy in STEAM education as part of Tauragė's sustainable development efforts. Read: **STEAM education for renewable energy | UBC Sustainable Cities Commission**

Best local practices introduced in UBC TALKS

- **Växjö** is participating in the **project developing the feasibility study for using the sustainable aviation fuel** (webinar)
- **Turku** develops the **Positive Energy District in its Student Village** (webinar)



Photo: City of Turku, Student Village

Resource efficient cities

Rapidly growing human population overconsumes natural resources and overconsumption is the root cause of major environmental problems such as climate change and biodiversity loss. To prevent these problems, natural resources need to be used more efficiently by moving from a linear economy model towards a circular economy.

UBC Sustainability Action Programme 2022–2030

UBC cities are taking a leadership role in Europe as well as globally by actively engaging in different initiatives and networks such as [ICLEI](#) and [European Circular Cities Declaration](#) among others and implementing main European frameworks, for example the [new circular economy action plan \(CEAP\)](#). Resource efficiency in UBC cities is also promoted by having a strategic approach for sustainable public procurement and waste management and a proactive approach to enable an operating environment for circular economy. UBC cities develop and implement holistic strategies or roadmaps for circular economy, addressing possible barriers to the regional use of resources. Cross-border cooperation and distribution of know-how in the region is also a large part of member cities' work on resource efficiency and will be more so in the future.

Insights from UBC cities

Regarding resource efficiency, cities were asked different types of questions ranging from sustainable food consumption to sustainable waste management. Based on their answers, many UBC cities are developing their **waste management** to be more environmentally friendly and emphasize **recycling** on all levels. The majority (73,7%) of them also have policies in place relating to **food consumption** in their cities whilst 21,1% do not and one city representative did not answer.



In practice, these policies mainly impact how the food served by the city is procured. For example, in City of Riga's case, food procurement must happen under certain conditions. In their answer Riga states that from 2022 onwards, at least 50% percent by weight or value of milk and kefir the city purchases must be produced with organic farming methods. Other cities also reported on similar conditions as well as preferring seasonal food products whenever possible.

Another trend reflected in the answers by UBC cities was decreasing the consumption of meat. In Espoo, for example, the city is participating in the Baltic Sea Programme of City of Espoo in 2019–2023. The aim of the programme is to increase the share of vegetarian food and fish sustainably caught in the Baltic Sea, such as whitefish and cyprinids, in food procurement. The aim is to reduce the consumption of meat and dairy significantly by 2025. According to the city, this will reduce climate emissions and the nutrient load entering the Baltic Sea.

Examples from UBC cities

Waste management is also a large part of a city's resource efficiency. Here are some concrete actions UBC cities have taken or are planning to take on to improve their resource efficiency:

- **Helsinki** has a roadmap for circular and sharing economy with 31 actions
- **Riga** is developing an environmentally friendly waste management with an emphasis on recycling
- **Klaipeda** has a zero-waste management target

"Does your city have any policies relating to food consumption within your city?"



- **Linköping** will utilize food waste as increased biogas production for vehicle fuel
- **Panevezys** is looking to increase the reuse and recycling of municipal waste and raise awareness on circular economy
- **Arendal** emphasizes awareness raising, and recycling in the city is made easy. A competence center for sustainable resource use will open in the city, and Arendal will also focus on contributing to recycling all locally accumulated plastic, either by recycling or energy recovery.
- **Kemi's** goal is to reduce the amount of waste, plastic in particular. Plastic is collected both from organizations and households, which is a great advance in the city's waste handling.

“The city is working with projects related to increasing the reusability of materials, for instance in building processes. We are also developing our procurement processes, for example with buying used office furniture for our different departments.”

City of Malmö

“Circular economy is crucial to achieving Espoo's ambitious sustainability targets: climate neutrality by 2030 and pioneering the SDGs by 2025. The city aims to become the best partner to develop sustainable solutions, and it participates in several projects where circular business models and businesses are tested, together with companies. Besides projects, circular economy is gradually becoming more integrated in strategic decisions. For example, when preparing the city recommendations for the national COVID-19 recovery plan, Espoo highlighted collaboration with businesses to develop circular solutions as a necessary action. Also, at the end of 2019, the city Mayor signed the European Circular Cities Declaration, which is a public commitment to develop circular economy systemically, across the city organization and together with external stakeholders. Given the population growth estimations for the city, construction is a vital sector to rethink circularly.”

City of Espoo

Resource-efficiency-related tools and practices from UBC cities

- **The Circular Turku Roadmap** is an example on a circular economy strategy and a roadmap towards resource wisdom.
- The City of Kemi looks into resource intelligent pilots on allotment gardens for residents, bringing up **opportunities for urban farming and local food production.**

Best local practices introduced in UBC TALKS

- **Lahti** was chosen as the European Green Capital 2021 and plans to improve resource efficiency also in the future
- **Riga** is an ambitious newcomer in the circular economy and is looking into circular construction.
- **Turku** aims to become resource wise through strong cooperation in the region and is preparing the Circular Turku roadmap.

[Watch the webinar](#)

Biodiverse cities

Biodiversity is essential for life – a healthy ecosystem filters the air and water, helps keep the climate in balance, converts waste back into resources, pollinates and fertilizes crops and much more.

Biodiversity loss and the climate crisis are interdependent. Restoring forests, soils and wetlands and creating green spaces in cities is essential for climate change mitigation. Protecting and restoring biodiversity and well-functioning ecosystems in urban areas is key to boost cities' resilience.

UBC Sustainability Action Programme 2022–2030

To mitigate biodiversity loss, UBC cities are taking a wide-range actions: biodiversity is increased and strengthened through planning ecosystem services, utilizing compensation mechanisms and ensuring the diversity of protected areas as well as the high quality of green areas. In addition to concrete solutions, political commitment and resources are secured through awareness raising and strategic communication on the topic in our member cities. Initiatives like the [European Commission Green City Accord](#) help to facilitate this work in cities on the European level which is why UBC has a supporter status in the Green City Accord and encourages its member cities to join the initiative.

Insights from UBC cities

Climate mitigation actions play a significant role in protecting biodiversity, therefore, this part of the report will focus on the actions cities have taken to prepare for the near future. In their answers for 2021, all UBC cities confirmed that they have a climate change mitigation plan or are planning to undertake one in the next 2 years.

Future climate hazards identified by UBC cities in 2021 included **heavy snowfalls** and **rainfalls** as well as **floods** and **sea level rise**. 66% of cities deemed sea level rise and floods as a threat whereas rainstorms affected 71% of cities, making it the most likely future climate hazard in the Baltic Sea Region. **Drought** and **heat waves** were also seen as a threat with some cities mentioning the **heat island effect**. 62% considered extreme hot temperatures as a probable threat that has already started occurring and some estimated that along with heat waves, some drought-related issues can be expected. However, forest fires were not concerned as a realistic issue for many, as it was seen something mainly caused by careless human behavior rather than drought.

In their 2021 report, many cities still mentioned the summer of 2018 as being one of the hardest ones in history, causing mortality and crop failures, and in some cities it even impacted their water supply. Cities also saw a threat in storms, which can cause disturbances in the electricity supply, the accessibility of the roads, train traffic, telephony, and water supply.

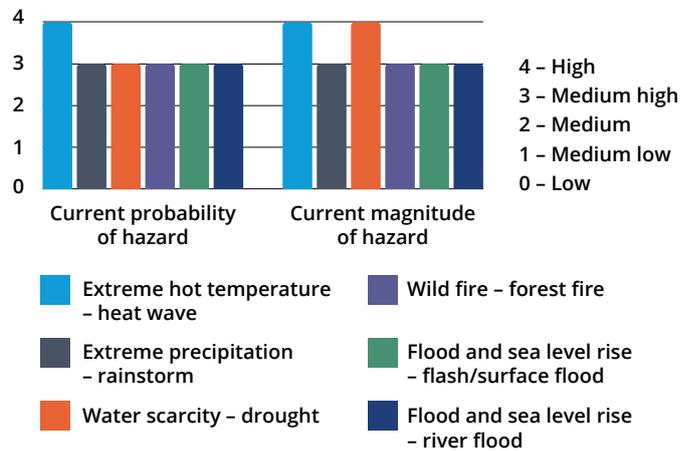
Examples

“We have a had a few summers with unusually high temperatures over long times. Old people, children and sick people are then at a risk of negative impact. Households that are not connected to municipal water supply experienced problems with dry wells and farmers could not get enough water to their cattle (and their harvests were not enough – also causing less income for them). Due to drought, there was also a higher risk for forest fires and actually, an indirect increase of fossil fuel use in the energy system, since it was impossible to use machinery in the forests as the sparks from the machines could’ve also ignited a fire.

Heavy rainfalls are a challenge, especially in the city where there is a higher share of hard-sealed surface. It can cause floods very fast. This is however dealt with and considered in the city planning as rainfall has caused floods in the city for a very long time, which is why we have become good at developing an infrastructure for storm water management. In some rural areas, heavy rainfalls may cause streams and rivers to occasionally flood. This, in combination with the standards of dams, may cause problems in some settlements but crisis teams have already been developed to deal with this.”

City of Växjö

Example: City of Växjö's climate hazard risk profile



In the future, Växjö estimates that these hazards will increase both in intensity and frequency.

In this year’s questionnaire the cities were asked to indicate the opportunities identified as a result of addressing climate change and describe how they are positioning themselves to take advantage of those opportunities. Almost all cities presented at least 2 different projects, actions or commitments related to climate change mitigation and biodiversity protection ranging from collaborating with businesses to developing waste management in the city or climate change resiliency projects.

“The Kuninkaantammi area in Helsinki is a pilot for nature-based and sustainable solutions in storm water management and utilizing the green factor tool. The experiences gathered from Kuninkaantammi are used in planning other areas in Helsinki. For example, in the Kalasatama and Hermanninranta areas nature-based solutions are part of the planning. Green infrastructure brings many benefits in addition to adaptation to climate change, such as benefits to health, enhancing biodiversity, providing cooling and shading, recreation.”

City of Helsinki

“Turku is actively strengthening collaboration with businesses and communities to encourage local and regional actors in climate action. Partnerships with national-level actors and research institutes play an important role in Turku's climate ambitions. A current example is the partnership with Finnish Innovation Sitra: Turku and Sitra have a sustainable development partnership agreement, whereby multiple climate and circular economy development projects have been successfully implemented and several are currently in the planning stage. Currently Turku is conducting projects aiming at strengthening climate collaboration with businesses and activating the collaboration between Finnish cities in carbon neutral business engagement and industrial areas. Cities and Ministry of the Environment are entering a voluntary Green Deal agreement, which aims at 100% fossil free construction sites in 2025 and the minimum of 20% machinery powered by electric, biogas or hydrogen. From 2030 the share of this machinery type will be 50%.”

City of Turku

Biodiversity-related tools and practices from UBC cities

- **Green City Accord** is a European Commission initiative to make cities greener, cleaner and healthier. By signing the GCA, cities commit to achieving by 2030 significant improvements in the environmental management of air, water, nature and biodiversity, circular economy and waste, noise. **Helsinki, Lahti, Turku, Riga, Gdynia** and **Malmö** have already signed the Accord.
- **Green Area Factor tool**, an Excel-based tool for urban planning to ensure sufficient green infrastructure when building new lots in a dense urban environment.
- **Overcoming barriers to climate adaptation**, CASCADE project presents a tool to understand and identify local obstacles in climate adaptation.

Mobility smart cities

While mobility and transport, including daily commuting and tourism, global supply chains and industrial production, brings many benefits to its users it is not without costs for the society. Greenhouse gas emissions, air noise and water pollution, accidents and road crashes, congestion, and biodiversity loss – all of these are also affecting health and wellbeing. At present, measures and policies have not yet sufficiently addressed these costs in a comprehensive and interconnected way, greenhouse gas emissions from the transport sector are still increasing and represent now a quarter of the EU’s total.

The success of the EU Green Deal depends strongly on the efforts made to make the transport system sustainable as a whole – and here cities and municipalities are at the core to take active measures locally.

UBC Sustainability Action Programme 2022–2030



UBC has been actively involved in numerous projects and initiatives to progress and promote the Sustainable Urban Mobility Plan concept in the Baltic Sea Region and in Europe and together with its member cities contributed significantly to the update of the current guidelines by the European Commission. UBC cities aim to integrate mobility and climate strategies and increase

inter- and multimodality options in urban areas with an emphasis on active modes such as walking and cycling. Our member cities are also committed to de-carbonization and digitalization of public transport as well as making mobility inclusive and accessible for everyone. 15-minute neighborhoods are being created to reduce the need of commuting.

Insights from UBC cities

Transport plays a large role in reducing greenhouse gas emissions in the Baltic Sea Region. In their mobility-related answers many UBC cities reflected on the same topics and mentioned similar actions such as turning their public transport more sustainable for example by increasing the number of **electric and hydrogen powered vehicles** in their fleet and encouraging citizens to favor **walking, cycling or carpooling**. **Mobility as a Service**-concept has also gained huge popularity among UBC cities in 2021.

Here are some examples on what the cities have already done or are planning to do in the near future to become mobility-smart:

“Transportation causes about a third of all greenhouse gas emissions in Espoo, a city that aims to be carbon-neutral by 2030. At the moment, the share of sustainable modes of transport in Espoo is 52 percent of all transport. Key measures taken to increase sustainability of the transport sector by the City of Espoo are the ongoing rail infrastructure projects. As a signatory city of the Charter of Brussels, Espoo is committed to increasing the modal share of bicycles to 15 percent by 2024, which is advanced through a cycling-promotion programme. In addition, the ridership of the public bike-sharing system of Espoo and Helsinki is one of the highest in the world. The breakthrough of Mobility-as-a-Service could reduce car ownership significantly while still providing citizens with a reliable and sustainable way

of travelling in the city, and Espoo has taken an active role to advance this. Espoo has also been a frontrunner in piloting autonomous buses, the goal of which is to improve the safety, reliability, cost-efficiency, and the level of service of transit. First in the world, an all-weather autonomous bus was developed in Espoo.”

City of Espoo

“The city of Linköping is developing a Mobility as a Service (MaaS) app. The Swedish Energy Agency has granted just over SEK 6 million for the development process, and a number of different mobility players are together building a user-friendly digital platform for increased sustainable travel. An app will make it easier for the Linköping citizens to see the range of public and shared transport services. It will also be easier to switch between and pay for combined mobility services.”

City of Linköping

“In Tauragė district, public transport is free for all citizens. Tauragė’s public company has renewed 18 gas-powered buses and bought 4 new electric buses. According to the new data, the usage of public transport has increased by 40 percent.”

City of Taurage

Examples

Many UBC cities have also been involved in larger EU-level projects to improve their mobility matters:

- **Riga** has been involved in GreenSAM project which develops green and age-friendly mobility offer to the city's senior residents, considering their needs and expectations towards contemporary urban mobility. The project contributes to implementation of Riga's strategic goals of reducing ecological footprint of urban transportation and shaping the city as an inclusive place of residence for everyone.
- **Aarhus** for the past few years has been a part of the Smart Mobility project, which focuses on finding new ways of tackling mobility challenges in a sustainable way. Recently, the city has put effort into Mobility as a Service with carpool as the focal point. They have created an app that encourages people not only to drive together but to combine it with bus, train, sharing bikes or electric scooters.

Best local practices introduced in UBC TALKS

- **Trelleborg** presents steps and measures to develop **smart mobility in the city** (webinar)
- **Riga** shares challenges and future plans on **sustainable mobility and enhanced multimodality** (webinar)

Mobility-related tools and practices from UBC cities

- **HUPMOBILE's Participatory Tools**

Developed to improve stakeholder involvement processes, this toolbox can assist cities by supporting the identification of stakeholder groups and engagement goals, and offering participation methods tailored for specific processes.

- **Interactive map for transport and active mobility in port areas**

As the division between port areas and residential areas is getting smaller, cities need to address the urban planning of these areas to make it safe and sustainable. An interactive map with a case study from Hamburg can help with identifying existing bottlenecks and offering solutions.

- **SUMP Self-Assessment Tool**

This tool helps cities to evaluate and improve mobility planning in the city or functional urban area. The results will show how well the planning activities fulfill the principles of a Sustainable Urban Mobility Plan, and provide tailored advice for further improvement, guidance and good practice examples.

Conclusion

Despite another challenging year behind us, working together towards climate neutrality is now more crucial than ever. Cities have a critical role in this, as they have the means to make a change in their region and to influence national-level policies by implementing sustainable solutions and raising awareness among citizens. Fortunately, many cities are rising to the challenge and have made the commitment to become climate neutral by 2050.

In 2021 the new UBC Sustainability Action Programme 2022–2030 was adopted by the XVI UBC General Conference marking an important step towards building a more inclusive, result-oriented and impact driven city network and a platform for close collaboration towards a sustainable, green and climate resilient Baltic Sea Region. Through the implementation of the Programme, UBC member cities demonstrate collective

response to emerging global challenges such as climate change, pollution, biodiversity loss and overexploitation of natural resources and advance their efforts in integrating climate actions in all five focus areas of future cooperation: water, mobility, energy, biodiversity and resource efficiency. Climate change as well as localisation of the UN 2030 Agenda for Sustainable Development take the central role in the Programme.

We are proud of all the UBC cities for demonstrating their high ambition in climate change mitigation work by publicly disclosing their data to CDP and helping us to promote the Baltic Sea Region as a forerunner in building strong, sustainable, and resilient cities. Combatting climate change is a joint effort, which is why we strongly believe in transnational cooperation. In the future, we wish to see more cities joining us and sharing their experiences and best practices.





Resources

[CDP: Disclosure Insight Action](#)

[Union of the Baltic Cities](#)

[UBC Sustainable Cities Commission](#)

[UBC Sustainability Action Programme 2022–2030](#)

[Baltic Smart Water Hub: International platform with solutions and expertise](#)

[A European Green Deal](#)

[Green City Accord](#)

[Baltic Sea Action Plan adopted by HELCOM](#)

[Climate change widespread, rapid, and intensifying: IPCC report for 2021](#)

[Policy recommendations for implementing the integrated stormwater management](#)

[ICLEI – Local Governments for Sustainability](#)

[Circular Cities Declaration](#)

[Climate Champions](#)

[A new Circular Economy Action Plan](#)

[GreenSAM project: Green Silver Age Mobility](#)



Tools & best practices

[CASCADE project: a tool to understand and identify local obstacles in climate adaptation](#)

[Circular Turku: A Roadmap Toward Resource Wisdom](#)

[Resource intelligence in City of Kemi](#)

[Integrated Storm Water Management System Guidelines](#)

[Green Area Factor tool](#)

[Smart Energy Management Self Audit \(SEMSA\) concept and self audit tool](#)

[Taurage: STEAM education for renewable energy](#)

[HUPMOBILE Participatory.Tools](#)

[Transport and Active Mobility in port areas: interactive map](#)

[SUMP Self-Assessment Tool](#)



UBC TALKS (webinars)

[UBC TALKS about Marine litter campaigns](#)

[UBC TALKS about stormwater management](#)

[UBC TALKS about water as a resource in a climate-resilient city](#)

[UBC TALKS about low carbon energy solutions in cities](#)

[UBC TALKS about future trends in sustainable energy production](#)

[UBC TALKS about transitions to circular economy in UBC cities](#)

[UBC TALKS about Sustainable Urban Mobility Planning](#)

[UBC TALKS about sustainable and multimodal mobility](#)

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The reference to a 'city' in the report applies to any entity which was a member of the Union of the Baltic Cities and that submitted data through the Cities 2021 Questionnaire (as of 31 December 2021) via the CDP-ICLEI Unified Reporting System.

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All steps in climate adaptation are important – we can all do our share!

Thank you for sharing your City's climate actions with us!

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