

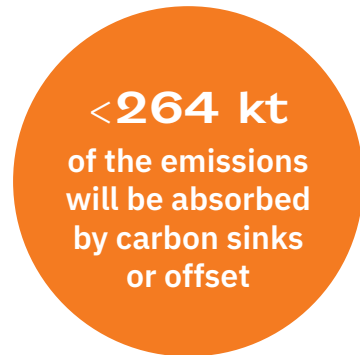
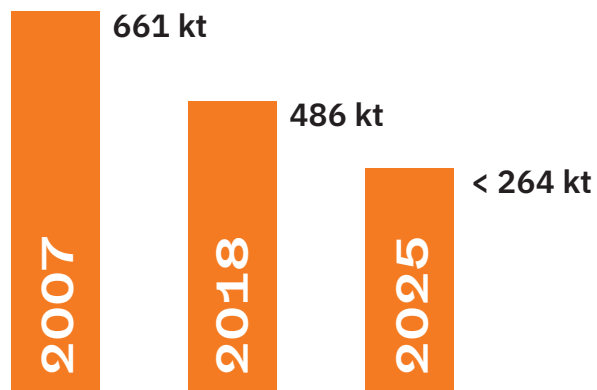
Carbon Neutral Joensuu 2025



Reaching our goal
through action

J • ENSUU
Climate

Our goal for the year 2025



Source: CO² report, kt CO²eq

Emissions will decrease by at least 60% from 2007 to 2025. The rest of the emissions will be absorbed by carbon sinks or offset.

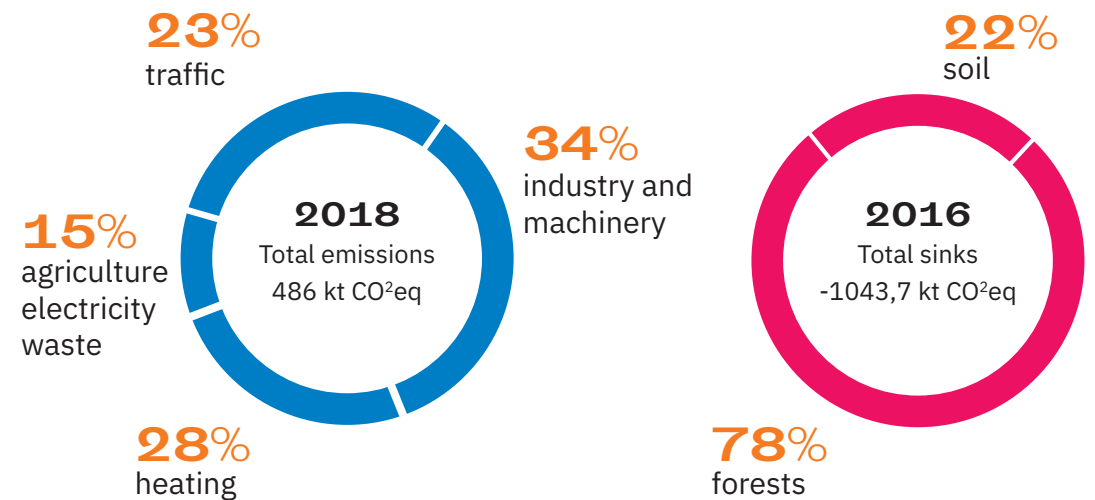
Our goal is to be a carbon neutral municipality by 2025. To attain this, we must permanently reduce our greenhouse gas emissions. We are striving to cut our emissions by at least 60% from the 2007 levels by 2025. The remaining 40% will be absorbed by carbon sinks or offset.

Our climate programme, Carbon Neutral Joensuu 2025, includes several procedures and methods for reducing emissions. Additionally, we are using a Carbon Sink and Compensation Roadmap, which outlines how we will increase our carbon sinks and compensate for emissions.

Emissions, sinks and compensations today



We are monitoring the development of our emissions annually with the help of a CO² report. The land use sector's emission and carbon sink data is based on Finnish national forest inventory (NFI) materials. Tree volume statistics are available for Joensuu for the years 1994 and 2000 as well as odd-numbered years starting from 2005.



Approximately 80%, or 2,095 km², of Joensuu's area is forestry land. Of this land, approximately 10 km² is protected.



Carbon neutral city in 2012 and 2016



We've already been carbon neutral in the past, because in 2012 and 2016 our forests were able to absorb all of our emissions. However, our goal is to be permanently carbon neutral by 2025.

But what does it all mean?



We are **carbon neutral** when our carbon emissions are equal to or less than the amount our carbon sinks are capable of absorbing. The remaining emissions that cannot be reduced or absorbed are offset through financial means.

We are monitoring the development of **greenhouse gas emissions (emissions for short)** in our region with the help of CO₂-raportti. Emission levels are expressed as **equivalent carbon dioxide (CO₂eq)**. Emissions are released by, for example, traffic and energy production.

Carbon sinks absorb and store carbon-containing compounds from the atmosphere. That's why carbon sinks are sometimes also called carbon stores. Examples of carbon sinks include forests, soil and bodies of water. Joensuu's most significant carbon sinks are its forests. The forests' ability to absorb carbon varies each year depending on how they are managed. In 2012, for example, we had enough growing forest to absorb all of our emissions. In the next control year, 2014, the size of forest areas decreased and their carbon absorption ability was reduced. As a result, they did not absorb any of our emissions. In 2016, we were carbon neutral once again, with our carbon sinks capable of absorbing more emissions than we produced.

We **compensate** for our emissions either by donating to sustainable development projects or buying emission allowances through the EU emissions trading system. Sustainable development projects may, for example, grow carbon sinks or develop new ways of utilising renewable energy.

Carbon Neutral Joensuu 2025 is our **strategic approach**, which will be implemented across all units of the City Group.

How we reduce our emissions




In order to reach our goal of carbon neutrality, we need to take action in many different areas. Our climate programme lists hundreds of measures, all of which aim for a permanent change so that we may continue to be carbon neutral in the future.

Here's just a handful of those many measures...

- We will invest in the maintenance and safety of pedestrian and cycling routes to make them more appealing as transport options.
- We will always take environmental criteria and sustainability into account when procuring equipment and services.
- City-owned properties and rental flats will get rid of oil heating by 2030.
- City-owned properties and rental flats that are covered by district heating will switch over to carbon neutral district heating.
- The food waste produced by our schools and daycare centres will be reduced by half by 2025.
- All work vehicles will be acquired as electric vehicles or at least hybrids in the future. In addition, we will acquire work bicycles for short distance travel.
- We will develop new low-carbon solutions together with climate projects.
- We will improve recycling of office furniture in city workplaces.

Read more about the climate programme measures:
climatejoensuu.fi



In the 2010s, 27–30% of all greenhouse gas emissions came from traffic



Solutions are being worked on

- The 2030 development plan for cycling and pedestrian traffic in Joensuu
- Reversing urban sprawl

Read more: icyclejns.fi

How we compensate for our emissions

Despite reducing our emissions, we cannot be completely free from them. These leftover emissions will be absorbed by carbon sinks or offset through financial means. We promote our carbon sinks' ability to absorb emissions by managing our forests in a sustainable way and planting more trees.

We compensate for emissions by financially backing projects such as managing and increasing the amount of carbon sinks in the Joensuu area or developing new ways to harness sustainable energy. We also compensate for emissions by buying emission allowances through the EU emissions trading system.

The city approved its Carbon Sink and Compensation Roadmap in 2019. The road map supports the city's climate programme by setting practical steps for cultivating local carbon sinks and developing Joensuu's methods of emission compensation, both of which are required in order to reach carbon neutrality.

Read more about the Carbon Sink and Compensation Roadmap: climatejoensuu.fi

We compensated for all of the city's business flights



In 2019, we compensated for all business flights taken by our city employees. We did this by buying emission allowances through the EU emissions trading system.

1/3 of emissions are produced by industry and business operations



Climate partnership is cooperation between the city of Joensuu and its companies and communities, with the goal of promoting sustainable business operations and a low-carbon Joensuu.

Climate Business Network

The Climate Business Network is a network for companies and communities operating in Joensuu. We use the network to share information and provide support for more environmentally sustainable operations. The members include companies, communities and organisations of all sizes.

You can join the Climate Business Network by signing a climate commitment with the City of Joensuu. The commitment consists of goals and procedures which you set for reducing the carbon footprint and environmental impact of your company or organisation.

Adaptation and preparation

We are doing everything we can to mitigate climate change and its effects. However, we need to adapt and prepare for certain changes, like the increased frequency of extreme weather phenomena such as heavy rain and heat waves.

We will make urban runoff management in urban areas more efficient by building retention basins and permeable pavements. We will also aim to process urban runoff right away to make it safe to redirect into bodies of water.

We will prepare for an increased need for street, road and water supply network maintenance due to increasingly variable weather conditions.

We will add more green spaces and roofs to bind water in urban areas. Green roofs also serve as insulation for buildings and green spaces provide protection on hot days.

We will protect the diversity of nature by restoring wetlands, fostering forest growth and soil quality and conserving various endangered habitats.

Networks and projects

We are a member of several energy and climate networks between municipalities. The networks serve as a data bank for municipalities and support them in developing climate work. In network meetings, representatives of municipalities share their experiences and examples of progress in climate work in their respective municipalities.

We also coordinate and finance climate-themed projects which are part of the City's climate work aiming at a low-carbon economy. The projects provide information and guidance on climate-smart and energy-efficient solutions. The projects also organise various events and communicate about climate work in the Joensuu region.

- **Covenant of Mayors**
- **European Green Leaf**
- **Hinku-verkosto**
- **Fisu – Finnish Sustainable Communities**
- **Poljin**

- **Climate Marketplace project 2015–2017**
- **Regional climate and energy work promotion project 2018–2019**
- **Climate Blocks project 2018–2020**
- **REIVI project 2019–2020**

Further information:

City of Joensuu / Environmental Protection Unit
ymparisto@joensuu.fi

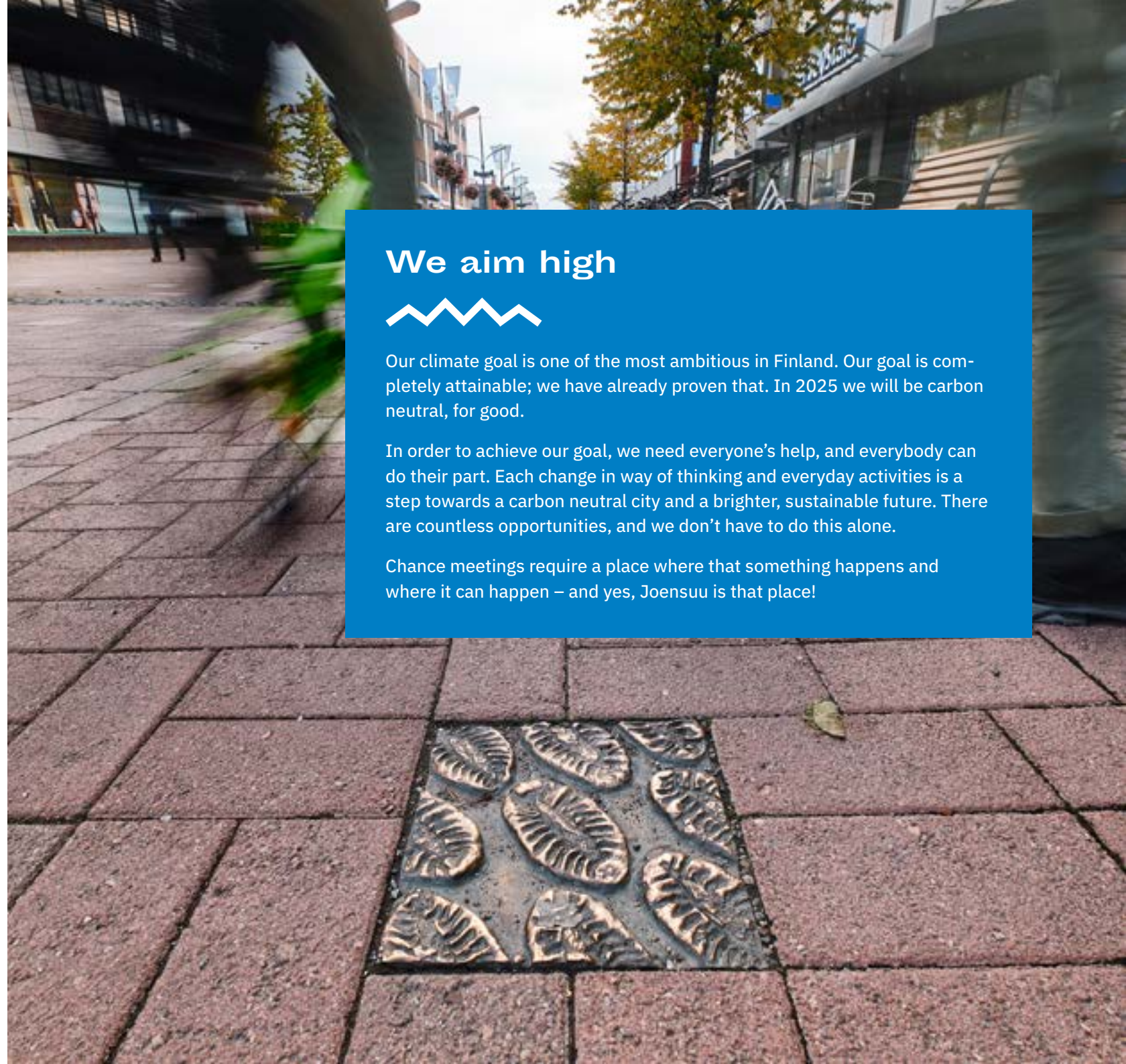
We aim high




Our climate goal is one of the most ambitious in Finland. Our goal is completely attainable; we have already proven that. In 2025 we will be carbon neutral, for good.

In order to achieve our goal, we need everyone's help, and everybody can do their part. Each change in way of thinking and everyday activities is a step towards a carbon neutral city and a brighter, sustainable future. There are countless opportunities, and we don't have to do this alone.

Chance meetings require a place where that something happens and where it can happen – and yes, Joensuu is that place!



An aerial photograph of a small, forested island in a dark blue lake. A dirt path winds through the green trees. Two people wearing red shirts are visible on the path. The water shows ripples and some logs floating near the shore.

**You are not
in this alone.**



www.climatejoensuu.fi