

Climate work and management practices in the City of Tampere

Climate-4-CAST Project Visit during Interreg BSR Conference
22.5.2025

Emmi Nieminen, Development Specialist
Climate and Environmental Policy, City of Tampere

City strategy: **CLIMATE NEUTRAL TAMPERE 2030**

Tampere aims to
be internationally known
for impactful action for
climate and biodiversity.

The 100 Climate-Neutral and Smart Cities by 2030

Climate neutrality:
80 % emission
reduction from
1990 level.
The rest will be
compensated.

 **EU MISSION LABEL**
CLIMATE-NEUTRAL & SMART CITIES TAMPERE

Mayoral program and climate governance tools

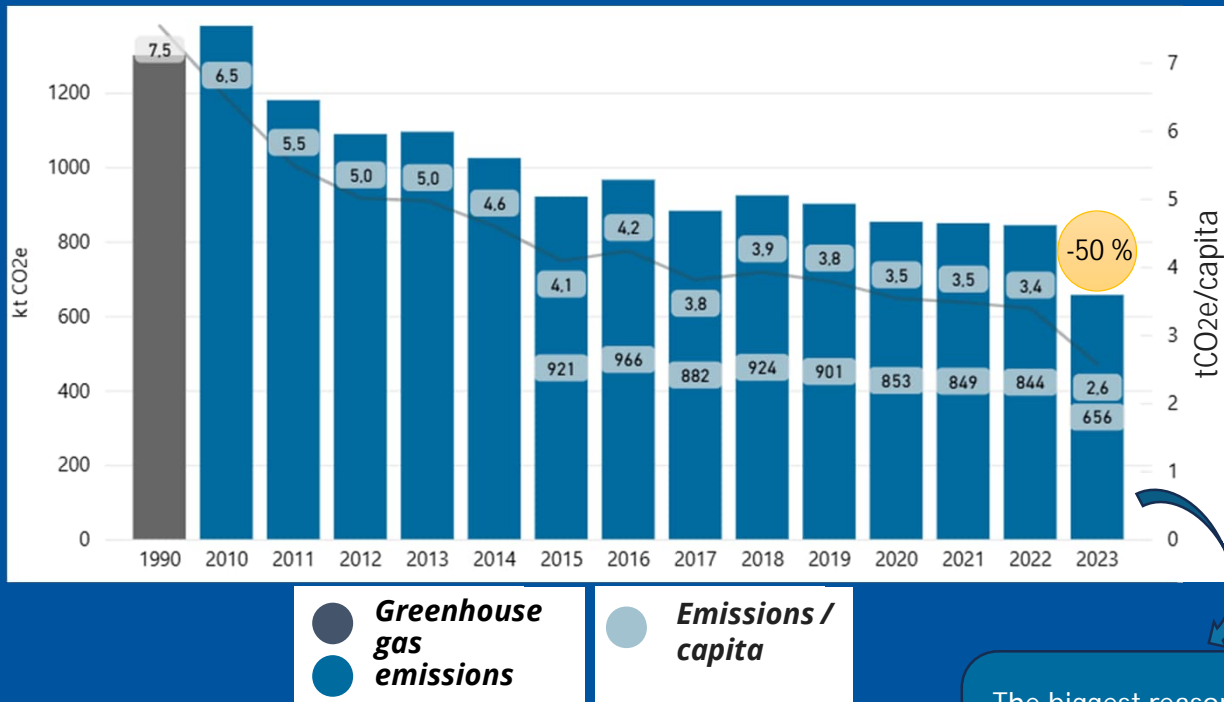
- The current **mayoral program** states:
Tampere is committed to achieve carbon neutrality by 2030 and actions from the Climate Neutral Tampere 2030 roadmap will be implemented.
- Two key tools for **climate governance**:
 - Climate Neutral Tampere 2030 Roadmap
 - Climate budget

Image: Visit Tampere / Laura Vanzo

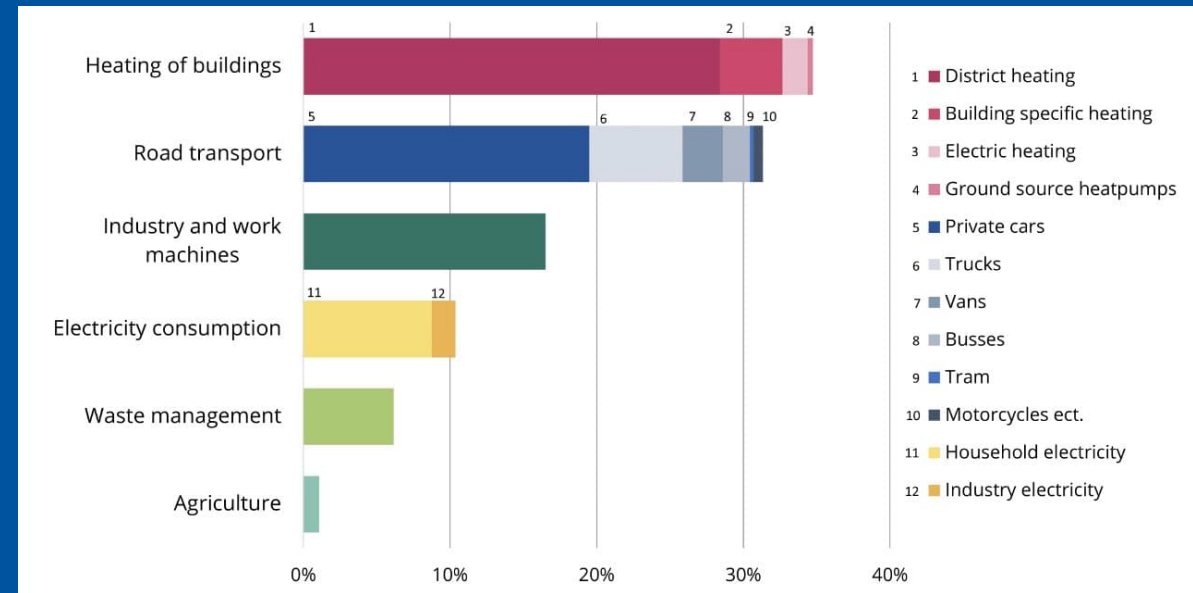
Where are we now in terms of climate emissions?

TAMPERE.
FINLAND

Greenhouse gas emissions in Tampere 1990-2023



Sources of greenhouse gas emissions in Tampere 2023



The biggest reasons for emission reductions in 2023:
Renovation of the Naistenlahti power plant + electric boiler, and reduction in emissions from national electricity production.

CLIMATE NEUTRAL TAMPERE 2030

ROADMAP



Climate plan prepared in close cooperation



Original plan
2020



1st update
2022

All departments in city organisation and subsidiaries were asked proposals on new and updated actions.



2nd update
2024

Workshops, unit-specific meetings, cross-pollination meetings between different units etc.

Actions from 35 departments included.

Actions from 26 subsidiaries included.

Climate Neutral Tampere 2030 roadmap

Roadmap measures are divided into 7 themes:

0. Climate leadership and stakeholder work
1. Sustainable urban planning
2. Sustainable mobility
3. Sustainable construction
4. Sustainable energy
5. Sustainable consumption
6. Sustainable urban nature

Total number of measures is 397.

THEME 0 – Climate leadership and stakeholder collaboration

Tampere is climate neutral in 2030. Tampere takes climate change risks and adaptation seriously.

0.1 Coordination and communications of climate work	0.2 Knowledge-based management and impact assessment	0.3 Sustainable business and corporate cooperation	0.4 Sustainable procurement
THEME 1 – Sustainable detailed planning The city grows primarily into public transport zones and regional centres.			
1.1 Assessment of the urban structure	1.2 Guiding the urban structure	1.3 Conditions for sustainable mobility	1.4 Strengthening green areas
THEME 2 – Sustainable transport system Share of sustainable modes of transport is 69%.			
2.1 Tram traffic	2.2 Commuter train traffic	2.3 Bus traffic	2.4 Service level of public transport
2.5 Pedestrian and bicycle traffic	2.6 Road transport	2.7 Delivery traffic	2.8 Waterborne traffic
2.9 Guidance of mobility	2.10 Transport equipment and work machinery		
THEME 3 – Sustainable construction New construction is at a zero-energy level, and the carbon footprint of housing is small.			
3.1 New construction in city properties	3.2 Renovation construction in city properties	3.3 Guidance of low-carbon construction	3.4 Guidance of private construction
3.5 Infrastructure construction	3.6 Use of recycled materials		
THEME 4 – Sustainable energy Renewable energy accounts for 80%.			
4.1 Centralised renewable energy	4.2 Smart energy networks and services	4.3 Decentralised renewable energy and energy efficiency	4.4 Abandoning oil heating
THEME 5 – Sustainable consumption Consumption is sustainable and the circular economy is functional.			
5.1 Waste management	5.2 Sustainable lifestyle	5.3 Ecosocial education	5.4 Eating
5.5 Sustainable tourism and experience economy			
THEME 6 – Sustainable urban nature Urban nature and blue-green structures sequester carbon, and the city is prepared for climate change.			
6.1 Carbon sinks in urban nature	6.2 Role of the blue-green structure in adapting to climate change	6.3 Ecological network	

What does the Climate Neutral Tampere 2030 Roadmap look like?

TAMPERE.
FINLAND

THEME 1 – SUSTAINABLE URBAN PLANNING

Measure package 1.3 Conditions for sustainable mobility

Sustainable mobility will be promoted and where the existing urban structure will be built more densely. In local traffic, there will be created for stopping points for walking and cycling. Special attention to mobility around the station and city centres as well as opportunities for sustainable mobility in Hiedanranta as an access to the city.

Climate change will be taken into account in traffic planning.

EMISSION REDUCTION ●●●●○



THEME 6 – SUSTAINABLE URBAN NATURE

Measure package 6.1 Carbon sinks in urban nature

The city's forest management, green areas and soil will strengthen the carbon sinks. The growing conditions of urban trees, shrubs and other plantings and the treatment of drainage water will be improved by, for example, building biochar growing media.

EMISSION REDUCTION: No emission reduction. Enables emission offsetting.



Measure number	Measure	Timetable in council terms	Responsibility	Costs	Mitigation/Adaptation/Circular economy
6.1.1	Management and use of city-owned forests will strengthen carbon sinks. The measures to strengthen carbon sinks are set out in the 2022–2030 forest management policy. Uneven-aged forest management will be preferred, for example, in the forests located around housing.	2024–2030	Real Estate and Housing, Climate and Environmental Policy, Environmental Protection	●○○○○○	(H) (S)

THEME 4 – SUSTAINABLE ENERGY

Measure package 4.1 Centralised renewable energy

The measures concerning large-scale energy production plants, such as the Naistenlahti Power Plant and the Tammervoima Waste-to-Energy Plant, will increase renewable energy, improve energy efficiency and promote the use of renewable energy in the Tampere region. For example, biogas will be increasingly utilised as an energy source. Whenever possible, carbon capture, reuse and storage, as well as other new solutions, will be taken into account in the next updates of the roadmap.

EMISSION REDUCTION ●●●●●



Image: Adobe Stock

THEME 5 – SUSTAINABLE CONSUMPTION

Measure package 5.4 Meals

The transformation to environmentally friendly eating will be promoted by, among other things, increasing the attractiveness of vegetarian food and offering vegetarian food on a daily basis in schools and day-care centres. At the same time, young people will be raised with responsible eating habits. Pirkanmaan Voimia will step up the use of plant proteins while reducing food waste. The city's hospitality functions will prefer locally sourced food.

EMISSION REDUCTION ●●●○○



Image: Visit Tampere OylLaura Valio

Measure number	Measure	Timetable in council terms	Responsibility	Costs	Mitigation/Adaptation/Circular economy
5.4.1	Voimia head for carbon neutrality Pirkanmaan Voimia Oy will develop its business in a climate-neutral direction while reducing emissions as set out in the climate roadmap. The use of plant proteins.	2024–2030	Pirkanmaan Voimia Oy	●●●○○	(H)

THEME 2 – SUSTAINABLE TRANSPORT SYSTEM

Measure package 2.1 Tram traffic

The construction of the tramway will continue. The second section, Pynninkintori–Santalahti–Lentävänniemi, will be built and the implementation plan for the third section, Pirkkala–Linnainmaa, will be completed. A project plan will be made for the Tampere–Ylöjärvi tramway.

The tramway and, for example, the extension of trams and the purchase of superbuses that



Image: Visit Tampere OylLaura Valio

THEME 3 – SUSTAINABLE CONSTRUCTION

Measure package 3.6 Use of recycled materials

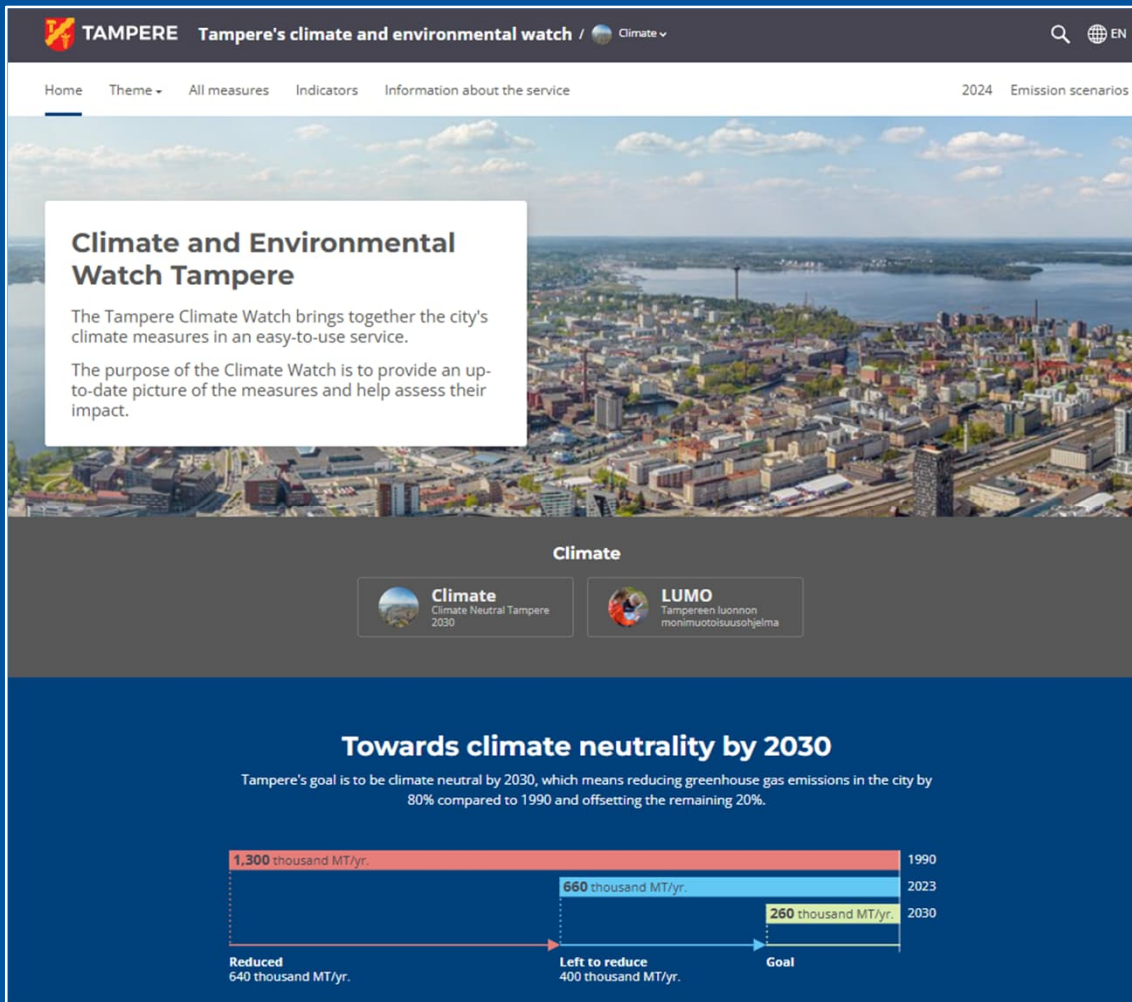
The possibility to use recycled materials will always be assessed in the project and building design of public street and park areas. Wherever possible, different materials and building elements will be recycled at the city's demolition and construction sites.



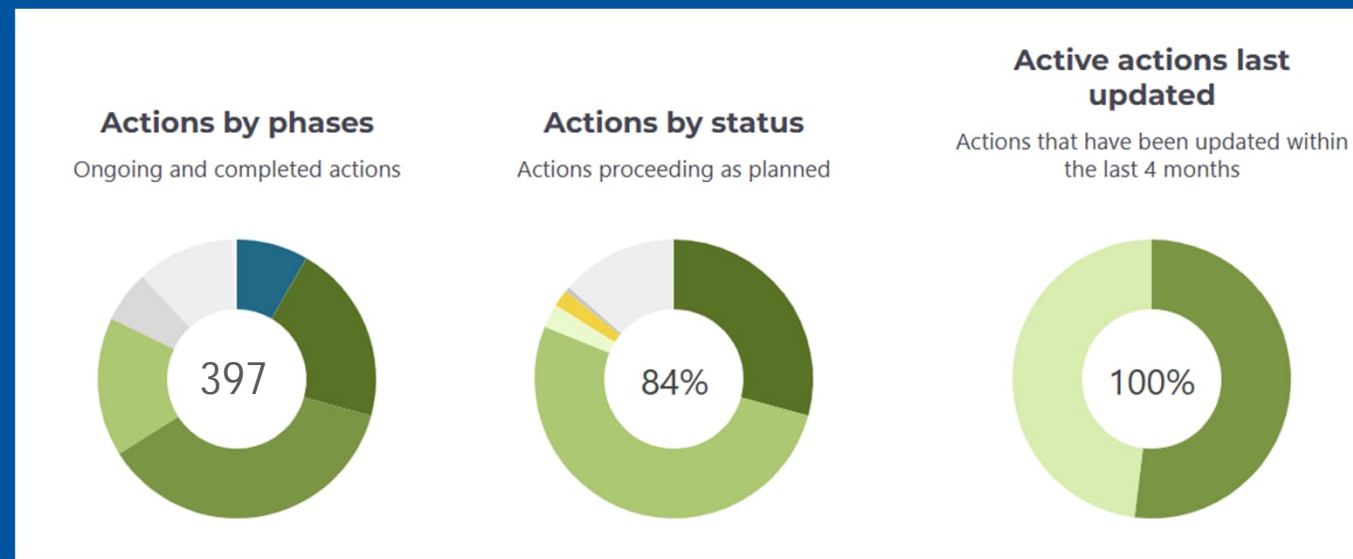
removed as complete elements so is related to the international ReCreate

Costs	Mitigation/Adaptation/Circular economy
	(H)

Monitoring through Climate Watch



- An online platform that tracks the city's climate actions and progress.
- The status of the action is updated three times a year by the responsible department.
- Provides up-to-date information on actions.



Current state of Tampere's climate budget

Why climate budget?

TAMPERE.
FINLAND

Monitors annually the progress towards carbon-neutrality.

Allows to evaluate the sufficiency of climate actions.



Kuva: Visit Tampere/Laura Vanzo

Provides information for decision making and improves transparency.

Combines climate work with the city budget and financial statements.

Climate budget in Tampere

- Tampere was the first Finnish city to introduce a climate budget in 2019. Now many Finnish cities have followed Tampere's example.
- Part of the official city budget.
 - Reporting of the realisation in the financial statements.
 - More detailed reporting in [Power BI](#).
- Compiled in close cooperation between the Economic department and the Climate and environmental policy department.



Climate budget

TAMPERE'S CLIMATE BUDGET = EMISSIONS BUDGET + FINANCIAL PLAN

Developed step by step; now established practice.

- 1st budget for 2020:

EMISSIONS

- 2nd budget for 2021:

EMISSIONS

ACTIONS

COSTS

- 3rd budget for 2022:

EMISSIONS

ACTIONS

COSTS

EMISSIONS
IMPACT

- 4th budget for 2023:

EMISSIONS

ACTIONS

COSTS

EMISSIONS
IMPACT

- 5th budget for 2024:

EMISSIONS

ACTIONS

COSTS

EMISSIONS
IMPACT

- 6th budget for 2025:

EMISSIONS

ACTIONS

COSTS

EMISSIONS
IMPACT

Regional emissions budget

Financial plan for city organisation

Emissions budget

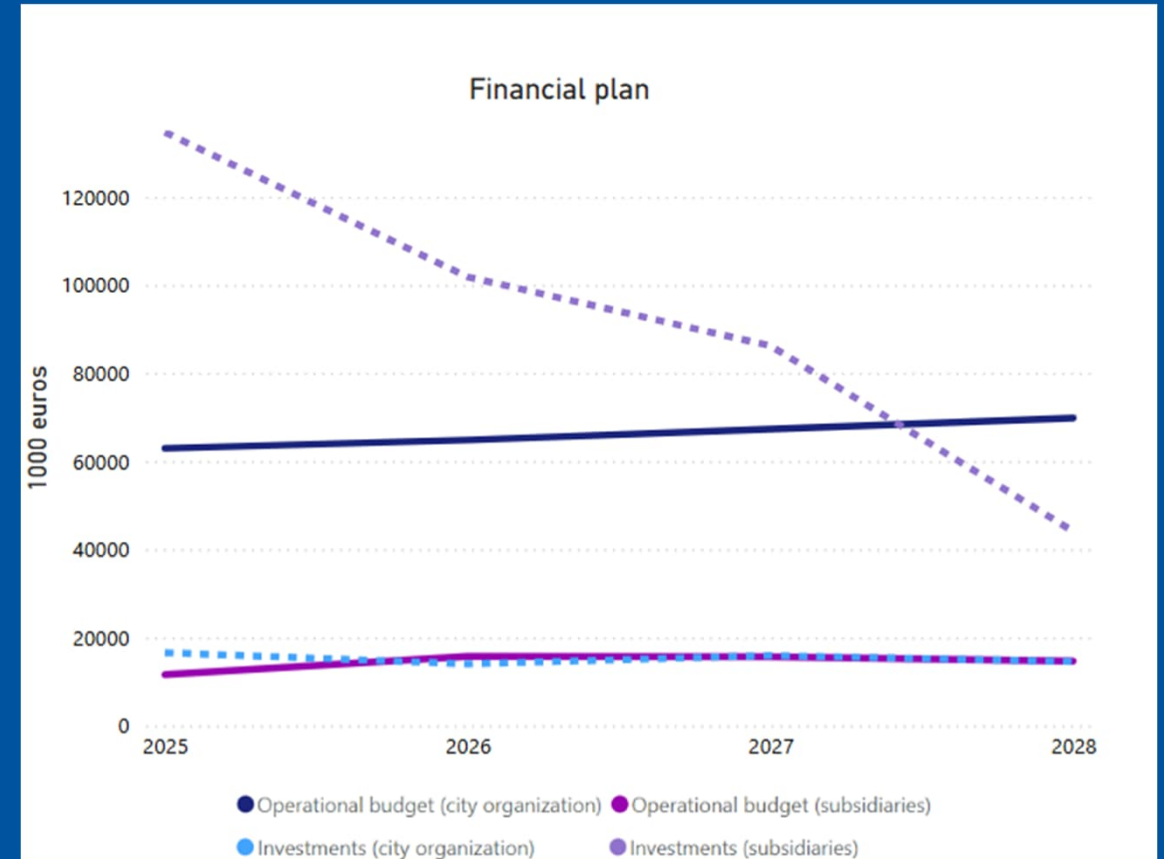
- Presents an annual maximum limit for direct emissions (scopes 1 + 2).
- Allows an assessment of where the targets can be met and which emission sectors may face challenges.
- Reassessed and updated when new data becomes available.

Emission sector	2022	Reduction from 1990	2025	2027	2030	Hits the target by 2030
Agriculture	6 700	-23 %	5 000	6 500	5 000	✓
District heating	285 500	-18 %	105 000	66 000	40 000	✓
Electric heating	19 400	-58 %	14 000	9 000	5 000	✓
Industry and work machines	146 100	-2 %	109 000	98 000	25 000	!
Industry electricity consumption	17 600	-86 %	13 000	10 000	9 000	✓
Other electricity consumption	85 200	-36 %	44 000	37 000	25 000	✓
Other heating	32 400	-74 %	22 000	12 000	4 000	!
Traffic	208 200	-28 %	175 000	164 000	115 000	✗
Waste and waste water	44 200	-50 %	39 000	36 000	32 000	✓
Total	845 300		526 000	438 500	260 000	

Official emissions budget for 2025 and estimated budgets for 2027 and 2030 in carbon dioxide equivalent tons (tCO₂e). In addition, actual climate emissions of Tampere in 2022 (the latest confirmed emissions) are presented along with a reduction from the year 1990. The expert assessment of staying within the emissions budget by sector is based on the need for change, the emission scenario of the Carbon Neutral Tampere 2030 Roadmap and known measures. Emissions are calculated according to the Finnish CO₂-report methodology with the difference that the sector "Consumers' electric consumption" has been renamed to "Other electricity consumption" and the the sector "Electric heating" includes "Ground source heat pumps".

Financial plan

- Separates the money allocated to climate action from the city's official budget.
- Considers the operating budget and investments over the 4-year financial planning period.
- Includes actions planned by the city organisation and its companies.



Financial plan in more detail

Investments (city organisation) 2025-2028 (1000 euros)

Responsibility	Measure	2025	2026	2027	2028
Central Administration	Construction of footpaths, cycle paths and stormwater solutions	-100	-100	-100	-100
Central Administration	Dredging of zero fiber	-1 300	-1 400	-1 300	0
Central Administration	Transition to an account-based payment system	-250	0	0	0
Economic Development, Competence and Real Estate	Procurement of a shared car	-40	0	0	0
Real Estate and Housing Policy	Air-to-water heat pumps in buildings	-20	-20	-20	-20
Real Estate and Housing Policy	Carbon footprint calculations	-100	-100	-100	-100
Real Estate and Housing Policy	Construction of bicycle parking facilities	-100	-100	-100	-100
Real Estate and Housing Policy	Electric vehicle charging stations	-80	-80	-80	-80
Real Estate and Housing Policy	Environmental certifications	-60	-60	-60	-60
Real Estate and Housing Policy	Phasing out oil heating	-2 300	-100	-50	-50
Real Estate and Housing Policy	Renewal of building automation systems	-900	-800	-700	-700
Real Estate and Housing Policy	Solar panels in buildings	-200	-200	-200	-200
Real Estate and Housing Policy	Wooden daycare centers and schools	-2 000	-2 000	-2 000	-2 000
Urban Environment and Infrastructure	Bicycle parking	-660	-614	-744	-702
Urban Environment and Infrastructure	Construction of commuter train stations	0	0	-3 000	-3 000
Urban Environment and Infrastructure	Construction of footpaths and cycle paths	-6 500	-6 500	-6 500	-6 500
Urban Environment and Infrastructure	Construction of nature-based stormwater solutions	-825	-825	-825	-825
Urban Environment and Infrastructure	LED replacements for outdoor lighting	-1 000	-1 000	0	0
Urban Environment and Infrastructure	Pedestrian and bicycle traffic guidance	-30	-30	-30	-30
Urban Environment and Infrastructure	Promotion of the circular economy	-50	-50	-50	-50
Urban Environment and Infrastructure	Traffic counters	-50	-50	-50	-50
Total		-16 565	-14 029	-15 909	-14 567

Investments (subsidiaries) 2025-2028 (1000 euros) and emission reduction impact (tCO2e)

Subsidiary	Measure	2025	2026	2027	2028	Emission impact
Finnpark Ltd	Electric cars	-130	0	0	0	
Finnpark Ltd	LED technology for hall lighting	-90	0	0	0	
Hiedanrannan Kehitys Ltd	Investment in footpaths and cycle paths	-957	-514	-533	-1 148	
Hiedanrannan Kehitys Ltd	Nature-based stormwater solutions	0	0	-220	0	
Palvelukiinteistöt Ltd	LED lighting replacements	-60	0	0	0	
Palvelukiinteistöt Ltd	SMART system, building automation, and adjusting operating times of HVAC machines	-361	-11	-11	-11	
Palvelukiinteistöt Ltd	Solar panels	-80	0	0	0	
Pirkan Opiskelija-asunnot Ltd	Renovation of heating systems (geothermal, exhaust air heat pump)	-280	-1 077	-295	-295	-5
Tammenlehväsäätiö Foundation	Charging facilities for electric cars and increasing cooling	-6	-2	-2	-2	
Tampere City Transport Ltd	Procurement of depots	0	-11 000	-11 000	0	
Tampere City Transport Ltd	Procurement of electric buses	-4 000	-15 000	-15 000	0	
Tampere City Transport Ltd	Updating charging fields	-1 000	0	0	0	
Tampere City Transport Ltd	Additional investments in Naistenlahti 3 power plant	-5 060	0	0	0	-4 300
Tampere City Transport Ltd	Decommissioning of the Lielähti natural gas power plant	0	-10 000	0	0	
Tampere City Transport Ltd	Electric boiler and district heating battery	-15 840	0	0	0	-2 700
Tampere City Transport Ltd	Energy-saving investments in aeration and the sewer transportation of septic and cesspool sludge	-2 600	0	0	0	
Tampere City Transport Ltd	Heat recovery, energy saving measures in pumping, renewable energy	-4 600	-300	0	0	
Tampere City Transport Ltd	Implementation of a sludge treatment and biogas plant	-19 400	0	0	0	
Tampere City Transport Ltd	Decommissioning of the old Koukkujärvi landfill	-944	-944	0	0	
Tampere City Transport Ltd	Development of biogas plant operation	-12 919	-1 988	0	0	
Tampere City Transport Ltd	Development of carbon capture	0	0	0	-248	
Tampere City Transport Ltd	Improving nutrient cycling	-248	0	0	0	
Tampere City Transport Ltd	Piloting of a local waste collection system in the Ojala-Lamminrahka area	-99	-44	0	0	
Tampere City Transport Ltd	Traffic biogas distribution station at Tarastenjärvi	-665	0	0	0	
Tampere City Transport Ltd	Optimising waste management intervals in buildings	-5	0	0	0	
Tampere City Transport Ltd	Solar panel systems and a heat pump	-60	-80	0	0	
Tampere City Transport Ltd	Construction of tramway infrastructure	-44 155	-39 959	-39 069	-20 000	
Tampere City Transport Ltd	Procurement of tram fleet	-6 400	-8 000	-8 000	-9 600	
Tampere City Transport Ltd	Network renovations	-9 112	-11 000	-11 000	-11 000	-20
Tampere City Transport Ltd	Energy efficiency measures in buildings	-330	0	0	0	-12
Tampere City Transport Ltd	Improving accessibility by walking and cycling	0	-500	0	0	
Tampere City Transport Ltd	Improving recycling	-20	0	0	0	
Tampere City Transport Ltd	Low-carbon and energy-efficient construction, RTS classification for buildings	-2 350	-350	0	0	
Tampere City Transport Ltd	Exhaust air heat pumps, solar collectors, HVAC energy saving measures	-190	-48	-40	-54	-8
Tampere City Transport Ltd	Window replacement	0	0	0	-700	
Tampere City Transport Ltd	Energy projects: lighting renovations, geothermal heating and solar panels	-2 750	-1 000	-1 000	-1 000	-83
Tampere City Transport Ltd	Promoting remote services	-3	-3	-2	-2	
Tampere City Transport Ltd	Promoting sustainable mobility for staff	-19	-19	-19	-19	
Total		-134 734	-101 838	-86 191	-44 079	-7 128



EU MISSION LABEL

CLIMATE-NEUTRAL & SMART CITIES TAMPERE



Realised budget in city's official financial statements

Climate investments by the Tampere City Group's subsidiaries in 2024 (1000 euros)

Responsibility	Measure	Financial statements 2024	Budget 2024	Difference
Finnpark Ltd	LED lighting in parking carages	-33	-80	47
Finnpark Ltd	Promoting the travel chain (Green Parking)	0	-335	335
Palvelukiinteistöt Ltd	Solar panels	0	-100	100
Pirkan Opiskelija-asunnot Ltd	Renovation of heating systems	0	-500	500
Pirkan Opiskelija-asunnot Ltd	Window renovations	0	-142	142
Tampere Energy Ltd	Additional investment in Naistenlahti 3 power plant	-25 600	-32 000	6 400
Tampere Energy Ltd	Electric boiler and district heating battery	-8 000	-12 000	4 000
Tampere Exhibition and Sports Centre Ltd	LED replacements for outdoor and indoor lighting	0	-337	337
Tampere Regional Solid Waste Management Ltd	Biogas filling station in Tarastenjärvi	-7	-360	353
Tampere Regional Solid Waste Management Ltd	Piloting local waste collecting system in the Ojala-Lamminrahka area	-6	-118	112
Tampere Tramway Ltd	Construction of the second section of the tramway	-24 690	-35 271	10 581
Tampere Tramway Ltd	Tram infrastructure and procurement of fleet (Pirkkala-Linnainmaa)	-22 728	-10 300	-12 428
Tampere Water Ltd	Closure of the Viinikanlahti and Rahola waste water treatment plants	-1 206	-1 000	-206
Tampere Water Ltd	Network renovations	-6 387	-10 000	3 613
Tampere Water Ltd	Optimising water production and distribution	0	-100	100
Tampereen Särkänniemi Ltd	Geothermal heating in new buildings	-38	-60	22
	g and cycling accessibility	0	-500	500
	truction, environmental classification for the economy consulting	-350	-350	0
	umps, solar panels, energy saving measures	-261	-240	-21
	ons, heat pump and solar panels	-675	-950	275
		-89 982	-104 743	14 761

Emission category	2021	2022	2023	Difference to budget	Budget 2023	Estimate 2024	Budget 2024	Target 2030
District heating	300 200	285 500	186 300	-71 300	115 000	142 900	110 000	28 000
Individual heating	29 700	32 400	28 100	16 900	45 000	27 000	39 000	4 000
Heating electricity	21 200	19 400	13 700	3 300	17 000	9 900	15 500	7 000
Transport	213 300	208 200	204 400	-27 400	177 000	200 500	168 000	115 000
Other electricity cons.	91 800	85 200	57 600	27 400	85 000	43 700	79 000	40 000
Industry electricity cons.	18 200	17 600	10 500	7 500	18 000		15 500	7 000
Industry and work machines	116 600	146 100	108 400	-22 400	86 000		80 500	39 000
Agriculture	6 700	6 700	7 000	-1 000	6 000	7 100	5 500	5 000
Waste and waste water	51 300	44 200	40 400	21 600	62 000	40 400	56 000	15 000
Total	849 000	845 400	656 400	-45 400	611 000		569 000	260 000

Confirmed greenhouse gas emissions generated in the Tampere area by sector for the years 2021–2023 and preliminary information for 2024, emission budgets for 2023 and 2024, and the target for 2030. Emission calculation and sector division follow the calculation method of the CO2 report, with the difference that the sector “consumer electricity consumption” is titled “other electricity consumption” and “ground source heat” is included in “heating electricity”. Unit: carbon dioxide equivalent ton (t CO2e)



EU MISSION LABEL

CLIMATE-NEUTRAL & SMART CITIES

TAMPERE





Improving Tampere's climate budget and climate data in Climate-4-CAST Project Pilot



Piloting in Tampere

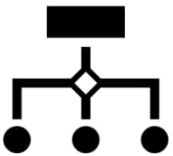
Key goals

1. Climate Action Decision Support Tool

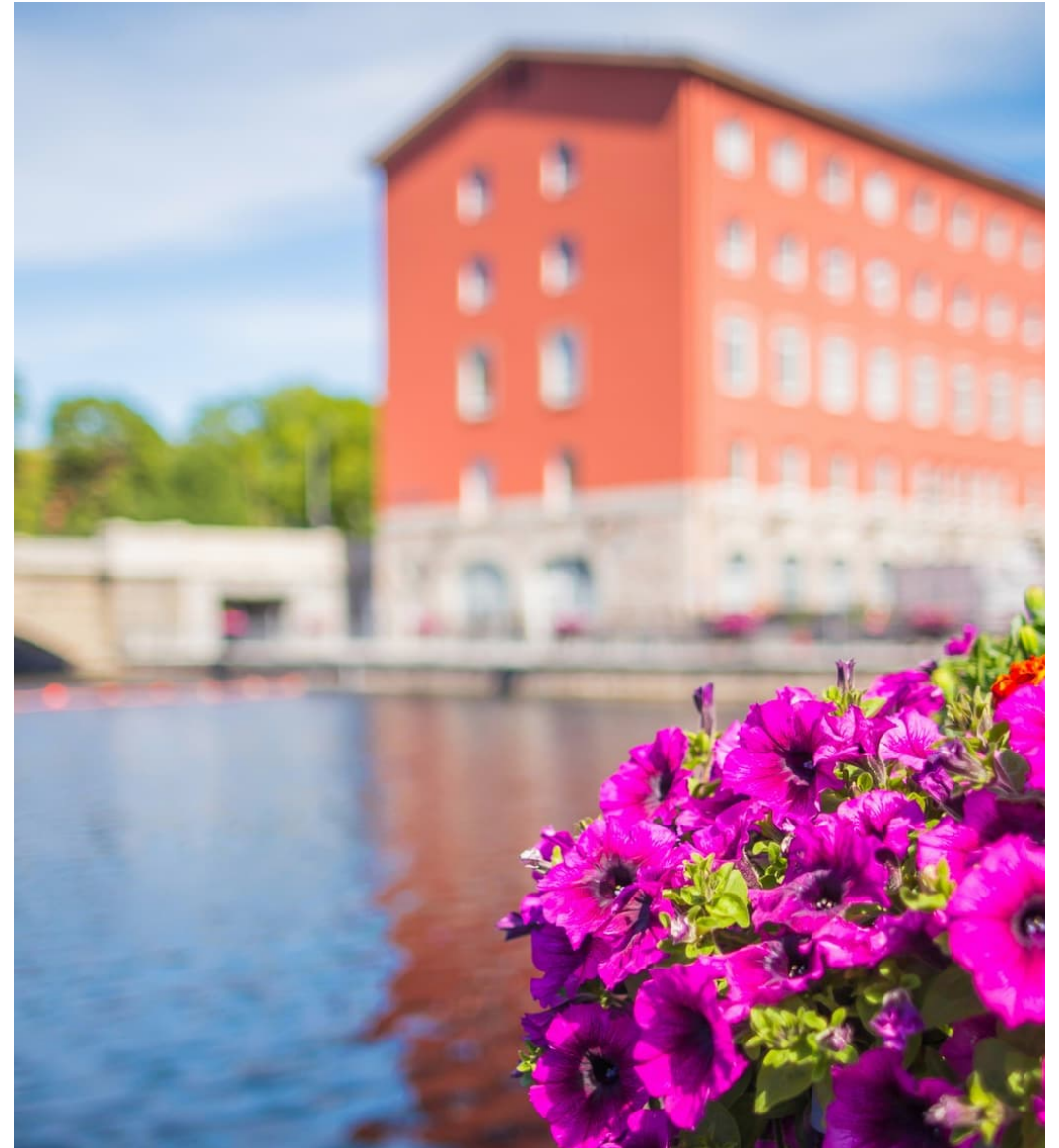


- A tool that visualizes (and calculates) city-level emissions and the emission and economic impacts of climate actions.
- The tool identifies cost-effective measures to reduce emissions.

2. Improve decision-making and climate budgeting processes in the city organisation.



- Ensure climate perspectives and long-term thinking in the decision-making and planning.
- Climate budget 2.0. A more effective and impactful climate budget.



CLIMATE BUDGET 2.0

Four development areas



1. Climate budget and Climate Neutral Tampere 2030 Roadmap go hand in hand and support each other more strongly.



2. A better assessment at the budget planning stage of whether the funding is sufficient to implement the actions in the climate plan.



3. Increased level of action-specific emission impact assessments in our future climate budgets.



4. Pilot the extension of climate budget to biodiversity budget.



© Shutterstock

Thank you!

Emmi Nieminen, Development Specialist

City of Tampere, Finland

emmi.nieminen@tampere.fi