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Climate-Neutral and Smart Cities Mission Call for Expression of Interest

Fields marked with * are mandatory.

Welcome!

The Climate-Neutral and Smart Cities Mission aims to

- deliver at least 100 European climate-neutral and smart cities by 2030;

- ensure that these cities also act as experimentation and innovation hubs to put all European cities in a position to become climate-neutral by 2050.

This **Call for Expression of Interest** offers ambitious European cities the opportunity to work and learn together to tackle the challenge of a lifetime. It is **addressed to cities interested** in **joining the Mission** and in particular to become climate neutral by 2030. **Cities can express their interest by filling in and submitting this questionnaire by 31st January 2022 at 17:00 CET.**

The Cities Mission is not only about further advancing leading cities; it aims to be wholly inclusive by selecting a geographically and culturally diverse cohort of cities who are recognised as much for their ambition and willingness to innovate, as for their progress with climate mitigation. You should not be discouraged to apply – for example – if you feel that your city's plans until now have not been very ambitious or if you cannot provide some of the information requested in the questionnaire. While the Mission is designed to help accelerate the progress of Europe's most ambitious cities, its greatest value will be, in fact, to inspire and serve **all** cities on their journey to climate neutrality. We invite cities with the courage and ambition to embrace the challenge, as well as the innovation, learning and transformation that comes with it.

Information under the Eligibility and Additional Information sections are **mandatory** and necessary to process the Expression of Interest. Please note that the only "eligibility" or "qualifying" criteria are those linked to the questions in the Eligibility section. The Additional Information questions are vital to build a foundation of information about the cities that express interest to participate in the Mission. We appreciate your contributions to this minimum baseline of information.

Information gathered from other sections of the questionnaire will help better inform the next phases of Mission implementation, including the services to be provided through the Mission Platform. These sections are not mandatory, but you are **encouraged to provide as much information as currently available**. However, failing to fill in one or more questions under these sections will **not** disqualify your Expression of Interest for submission. We would ask you to indicate the reasons when you are not able to provide a response, including if that information is not readily available.

The documents that you wish to upload in the questionnaire can be either in English or in any one of the official EU languages. In the latter case, we would be grateful if you could provide, if possible, as well a courtesy translation or a summary in English.

The answers to the questions in free form text can be either in English or in any one of the official EU languages. In the latter case, please note that a machine translation of the answers to English will be performed and will be communicated together with the original questionnaire to the experts reviewing the Expressions of Interest.

The European Commission will select cities to participate in the Mission with the help of independent external experts. The evaluation criteria are explained in the Info Kit for Cities. They include the cities' level of ambition, preparedness, existing and planned commitment to climate neutrality, commitment to involve citizens and stakeholders, as well as inclusiveness, diversity and geographical balance.

PARTICIPATION OF CITIES OUTSIDE THE EU: Cities that are established in countries associated to Horizon Europe or in other third countries negotiating association to Horizon Europe can be involved in the mission by replying to this Call. However, they should be aware that they may not be eligible to receive funding from other EU programmes and this would substantially limit the support they would receive in particular from the Mission Platform. Cities should therefore be able to demonstrate in their response to this Call how they will be able to meet the objectives of the Mission without help from other EU programmes.

Additionally, as EU funding schemes are usually not available to non-associated third countries, cities established therein would not benefit from this Call for Expression of Interest. They are thus not advised to fill in the questionnaire. However, should they wish to receive

information about the activities of the Cities Mission and its international dimension, they can contact the Cities Mission team at the following address: EC-CITIES-MISSION@ec.europa.eu

Personal data protection and this form

The European Commission collects and further processes personal data pursuant to Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data repealing Regulation (EC) No 45/2001.

In the case of this form, the European Commission Directorate-General Research and Innovation, Unit C2 Future Urban and Mobility Systems, collects and uses your personal information within the framework of targeted consultation activities. In view of the design, evaluation and revision of initiatives, it is indispensable for the Commission to receive input and views from those who are considered to be concerned by the policy or initiative. In this particular case, your personal data is registered and processed in order to allow the Commission to send you a personal link to participate in the EU Mission for Climate-Neutral and Smart Cities initiative. The information collected includes first name, surname, email address, organization and position.

Your personal data will not be used for an automated decision-making including profiling.

For additional details on the handling and processing of your personal data, please see the 'Personal Data Statement' available on the right hand side of all pages of this form.

☑ **I confirm I accept the personal data protection statement**

Use of the technical data collected through this form

The call for Expression of Interest (hereinafter: EOI) is addressed to cities interested in joining the Cities Mission. The call for EOI collects information of participating cities in order to determine their eligibility for the Cities Mission and to assess their current situation as relevant for the participation in the Cities Mission and the Mission' s ambition of reaching climate neutrality by 2030.

The collected data will be further processed and analysed in view of establishing a baseline for the Cities Mission, including current levels of preparedness of local authorities, remaining barriers and assistance needs. This analysis is undertaken to prepare the next phases of Mission implementation.

For additional details on the handling and use of the technical data collected through this form, please see the 'Technical Data Use Policy' available on the right hand side on all pages of this form.

☑ **I confirm I accept the technical data policy**

Eligibility

Information about the city

*** Please select if your city is located in**

Throughout this questionnaire the term city is used to refer to all geographical subnational jurisdictions ("Local Administrative Units") or territorial units eligible under the Cities Mission.

- ○ An EU country
- ◉ A country with an Association Agreement to the Horizon Europe programme or in the process of negotiating such Agreement
- ○ Another non-EU country

*** Please select the country in which your city is located**

Cities that are established in countries associated to Horizon Europe or in other third countries negotiating association to Horizon Europe can be involved in the mission by replying to this Call. However, they should be aware that they may not be eligible to receive funding from other EU programmes and this would substantially limit the support they would receive in particular from the Mission Platform. Cities should therefore be able to demonstrate in their response to this call how they will be able to meet the objectives of the Mission without help from other EU programmes.

NO - Norway

*** Please provide the official name of your city in English**

Tromsø or Tromso

*** What type of administrative unit is your city according to Eurostat?**

Eurostat regions and cities glossary available at:
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Category:Regions_and_cities_glossary

- ◉ Local Administrative Unit (LAU)
- ○ City
- ○ Greater City
- ○ Functional Urban Area (FUA)
- ○ Metropolitan region
- ○ Not applicable

*** Please provide the code/ID according to the option previously selected**

Please consult the file provided in the File section on the right side of this page.

NO 074 5401 Tromsø

*** Please specify the number of inhabitants in your city**

Only values between 10000 and 1.5E7 are allowed

Eligibility criterion on population size: Cities may participate in the Mission if they have at least 50 000 inhabitants. Cities from countries with 5 or less cities of more than 100 000 inhabitants may express their interest if they have more than 10 000 inhabitants. Those countries are: Croatia (HR), Cyprus (CY), Estonia (EE), Ireland (IE), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Slovenia (SI) and Slovakia (SK).

77399 inhabitants

* **To which year does this population figure refer?**

Format: 2xxx

2021

Commitment

Please confirm your city's intention to join the Cities Mission with the ambition to reach climate neutrality by 2030

☑ I confirm

If confirmed, please upload the document supporting your city's intention to join the Mission

Please provide a letter or a declaration, signed by a city representative (e.g. Mayor, Deputy Mayor or authorised delegated representative within the city administration) confirming the city's interest to join the Cities Mission and to commit to the objective of reaching climate neutrality by 2030, as defined in the context of the Mission.

Additional information

About the city

* **Please define the land area within the administrative boundary (in square km)**

Please provide a numerical value

2474

* **Please specify the geographic boundary that corresponds to your city's 2030 climate neutrality target**

Same as the city administrative boundary

About the Expression of Interest

* **Please confirm that your city intends to address all Greenhouse Gases (GHGs) and sectors / sources of emissions to reach climate neutrality by 2030 as defined by the Cities Mission**

Mandatory GHG emissions to be covered per the Cities Mission's climate neutrality definition:

1. Direct GHG emissions (Scope 1) within the city boundary from stationary energy (buildings/facilities/equipment), transport, waste / wastewater disposal and treatment, Industrial Processes and Product Use (IPPU), and Agriculture, Forestry and Other Land Use (AFOLU).

2. Indirect GHG emissions (Scope 2) within the city boundary due to consumption of grid-supplied electricity and grid-supplied heat or cold.

3. Out-of-boundary GHG emissions (Scope 3) due to the disposal and treatment of waste / wastewater generated within the city boundary.

Emissions of the following GHG have to be accounted for: CO2, CH4, N2O, HFCs, PFCs, SF6, and NF3

- ( ) Yes, we confirm
- (•) No, we propose duly justified exclusions

*** If no, please provide a detailed justification for any exclusion(s)**

1000 character(s) maximum

Provide a detailed description of exclusions from the target boundary (i.e. clearly state the exclusion of any sector, source, scope, gas specified as part of the applicable climate neutrality definition)

We propose two exclusions: air traffic and shipping. With roughly 20.000 and 80.000 tonnes CO2 eq. yearly, they represent approx. 40% of Tromsø's total direct GHG emissions. Our possibilities to reduce these emissions are limited due to their activities often originating beyond our city's borders. Long distance air traffic will remain fossile and a substantial part of total air traffic. But for short distance air traffic efforts to electrify have begun on national level with the development of smaller electric planes and adequate airport infrastructure. However, this is in an initial phase and results cannot be expected before 2030. Regarding shipping, many ships simply pass through our waters. For the ships that do stop in our ports, we are developing charging infrastructure that will reduce port-related land transport emissions as well as emissions from cruise ships and ferries while in port. We expect to decrease shipping emissions by 8.000 tonnes in in 2030.

*** Is this Expression of Interest part of a group of cities?**

Please select yes, if your city or entity submits this EOI as part of a larger group of cities.

Please be aware that every city being part of this group will still need to fill in their own questionnaire and submit their Expression of Interest clearly indicating that they are doing so as part of such group.

- ( ) Yes
- (•) No

*** Please select the languages used for the uploaded documents provided**

The documents that you wish to upload in the questionnaire can be either in English or in any one of the official EU languages. In the latter case, we would be grateful if you could provide, if possible, as well a courtesy translation or a summary in English.

The answers to the questions in free form text can be either in English or in any one of the official EU languages. In the latter case, please note that a machine translation of the answers in English will be performed and will be communicated together with the original questionnaire to the experts reviewing the expressions of interest.

[ ] Bulgarian	[ ] Estonian	[ ] Irish	[ ] Portuguese
[ ] Croatian	[ ] Finnish	[ ] Italian	[ ] Romanian
[ ] Czech	[ ] French	[ ] Latvian	[ ] Slovak
[ ] Danish	[ ] German	[ ] Lithuanian	[ ] Slovenian
[ ] Dutch	[ ] Greek	[ ] Maltese	[ ] Spanish
[x] English	[ ] Hungarian	[ ] Polish	[ ] Swedish

About the city's representative

Please provide the following information on the legal representative of your city

* **Name**

Stig Tore

* **Surname**

Johnsen

* **Position**

Director General Tromsø Municipality

* **Email address**

stig.t.johnsen@tromso.kommune.no

Please confirm the following statement: I hereby declare that I have the consent of the city administration to respond to this Call for Expression of Interest and to submit the questionnaire on its behalf. I hereby confirm that the information contained in this questionnaire is correct and complete

☑ **I confirm**

Current level of emissions

The questions in this section enquire about your city's current level of Greenhouse Gas (GHG) emissions and the systems you may have put in place to compile city-wide GHG inventories. Cities are not expected to have completed a comprehensive GHG emissions inventory for all sectors and scopes covered by the Cities Mission (please consult the Info Kit for Cities, Part II, Section 2.4 for further information), or to perform an inventory to answer to this call. However, you are encouraged to share information about previous inventories in your city, irrespective of the inventory scope and methodology.

This is not intended to be an excluding criterion. It is to enable us to get a clearer understanding of what methods cities are using to collect such data, and also to understand better the GHG emission reduction efforts needed in different cities expressing their interest.

Overall

Has an inventory of Greenhouse Gas (GHG) emissions been undertaken for your city since 2005 (included)?

A Greenhouse Gas inventory is an accounting of Greenhouse Gases (GHGs) emitted into or removed from the atmosphere. An inventory lists, by source, the amount of GHGs emitted into the atmosphere during a given time period (usually a calendar year).

If multiple inventories are available, preference should be given to the most complete and most recent inventory.

- (●) Yes
- ( ) No
- ( ) Under preparation

Please indicate the total GHG emissions resulting from the inventory in question (metric tonnes CO2 equivalent)

Please provide the figures in metric tonnes CO2 equivalent (absolute value, i.e. not per capita). **To indicate decimals, please use the dot as separator**

Emissions resulting from the energy generation sector should not be included in the total emissions of the city in order to avoid double counting. The resulting emissions should be captured as the indirect emissions from consumption of grid-supplied energy under the stationary energy sector of the inventory. However, if the total emissions indicated here include direct emissions from energy generation, please indicate this when answering the question “Please indicate the sector(s)/source(s) covered by the GHG inventory” below.

251170

Accounting year

Only values between 1990 and 2020 are allowed

The accounting year refers to the year to which the collected data corresponds (i.e. not the year in which the inventory was compiled).

2019

Population in accounting year

76649

Please indicate the standard/methodology applied for compiling the GHG inventory

- ( ) Covenant of Mayors Europe (CoM Europe) methodology
- ( ) Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC)
- ( ) Global Covenant of Mayors (GCoM) Common Reporting Framework (CRF)
- (●) 2006 IPCC Guidelines for National Greenhouse Gas Inventories
- ( ) Regional or country specific methodology
- ( ) City specific methodology
- ( ) Other

Please indicate the sector(s)/source(s) covered by the GHG inventory

It is good practice to account for GHG emissions from the generation of grid-supplied energy by facilities within the city boundary, as well as by facilities owned (fully or partially) by the local government located outside the boundary.

However, as the energy generated by such facilities is supplied to the grid, the resulting emissions should be captured as the indirect emissions from consumption of grid-supplied energy under the stationary energy sector of the inventory. As such, emissions resulting from the energy generation sector should not be included in the emissions total of the city in order to avoid double counting.

- [x] Stationary energy
- [x] Agriculture, Forestry, and Other Land Use (AFOLU)
- [ ] Other
- [x] Transport
- [x] Industrial Processes and Product Use (IPPU)
- [x] Waste/wastewater
- [x] Energy generation

Please indicate which of the following Greenhouse Gases are covered by the inventory

- [x] CO2
- [x] N2O
- [ ] PFCs
- [ ] NF3
- [x] CH4
- [ ] HFCs
- [ ] SF6

Please indicate the boundary of the inventory relative to the city's administrative boundary

- (•) Same - covers entire administrative boundary and nothing else
- ( ) Smaller - covers only parts of the administrative boundary
- ( ) Larger - covers the whole administrative boundary and adjoining areas
- ( ) Partial - covers part of the administrative boundary and adjoining areas

Can you provide a sector breakdown of your city's current level of GHG emissions (as established by the GHG inventory referenced above)?

- (•) Yes
- ( ) No

Please provide in the table below total emissions (absolute values, in metric tonnes CO2 equivalent) per sector for which data is available

Please provide the figures in metric tonnes CO2 equivalent (absolute value, i.e. not per capita). The information provided in the table should stem from the inventory for which details have been provided above.
Leave blank any field uncovered by your inventory. If a different aggregation/breakdown is used, please choose the "Included elsewhere" option in the table provided in the next question.
Please consult the InfoKit, Section 2.4 (page 21ff.) for further information.

Sectors	Total emissions (metric tonnes CO2 equivalent)
Stationary energy This should cover direct and indirect emissions.	25743
Transport This should cover direct and indirect emissions.	173315
Waste/wastewater This should cover direct emissions as well as out-of-boundary emissions (i.e. emissions from all waste/wastewater generated within the city, whether managed/disposed of within the city or outside).	43301
Industrial Processes and Product Use (IPPU) This should cover direct emissions.	53
Agriculture, Forestry, and Other Land Use (AFOLU) This should cover direct emissions.	8759
Other (please specify in the additional question below)	
TOTAL EMISSIONS (excluding generation of grid-supplied energy)	251170
Energy generation (emissions resulting from the generation of grid-supplied energy) Emissions resulting from the Energy Generation sector should not be included in the emissions total of the city in order to avoid double counting.	

In case 'Other' emissions have been provided in the previous table, please explain the origin

200 character(s) maximum

For each sector for which the total emissions are not available, please select the reason that fits best

"Not occurring": An activity or process does not occur or exist within the city.

“Included elsewhere": GHG emissions for this activity are estimated and presented in another sector in the same inventory.

“Confidential": GHG emissions which could lead to the disclosure of confidential information, and as such are not reported publicly. For instance, certain industrial facilities may not permit public data disclosure where this impacts security.

“Not estimated": GHG emissions occur but have not been estimated or reported.

Sectors	Not occurring	Included elsewhere	Not estimated	Confidential
Stationary energy	○	○	○	○
Transport	○	○	○	○
Waste/wastewater	○	○	○	○
Agriculture, Forestry, and Other Land Use (AFOLU)	○	○	○	○
Industrial Processes and Product Use (IPPU)	○	○	○	○
Other	○	○	○	○
Energy generation (emissions resulting from the generation of grid-supplied energy)	◉	○	○	○

Please upload any supporting documentation

Please upload the GHG inventory (summary output) and supporting documentation (if applicable).

Is your city regularly compiling GHG emissions inventories for its territory?

Yes, at least annually

Trends

If available, please describe the trend of your city's GHG emissions over time (as available, but covering a period of at least 5 years)

500 character(s) maximum

Please describe the trend over time (this can be supported by the upload of a graph or table in the following question). Clearly specify the units of measurement (i.e. whether absolute or per capita)

The 2019 figures show that GHG-emissions increased by about 20% compared to 2009. This increase is to a large degree due to the start of waste incineration in 2017. From 2009 there was also a marked increase in air traffic and shipping as well as construction activities. The increase in air traffic and shipping is to a large degree due to the growth of tourism. Road traffic emissions show a substantial decrease as from 2015, in spite of increasing tourism and construction activities.

You may upload supporting documentation (if any)

Documentation should specify the coverage of the GHG emission figures and their source. If absolute figures are provided, please specify the evolution of the population in the same timeframe (if significant changes occurred)

Current policies

The questions in this section invite you to highlight your city's climate ambition and policies up to now. The Mission intends to be strongly inclusive and to include a diverse group of cities with different starting points in respect of progress towards climate neutrality.

Here you have the opportunity to describe any official targets already in place, your city's adopted plans relevant to climate change mitigation and Greenhouse Gas emissions reduction at sector or cross-sectoral level, and to provide further details on existing policies and measures. Additionally, this section collects information on the degree of involvement of your city in relevant initiatives and projects at EU, national or local levels. This information will allow us to gain a more detailed picture of your city's starting point in the most relevant sectors for urban climate action.

While this section also highlights the topic of digitalisation and smart city as an important enabler of the climate neutrality transition, it is treated as a horizontal topic in all other sections.

The transition to climate neutrality will bring both co-benefits and adverse impacts. The last questions in this section will provide insights into if and how these are currently addressed.

Details on existing targets

Has your city officially adopted a Greenhouse Gas (GHG) emissions reduction target for the future (i. e. with a target year after 2020)?

- (●) Yes
- ( ) No

- [ ] Planned

Please state the target and its official source

500 character(s) maximum

Please specify all relevant details pertaining to the target (e.g. reduction percentage, target year/base year).

Tromsø's overall climate objective is to reduce greenhouse gas (GHG) emissions with 55% in 2025 and 85% in 2030 compared to 2009. This overall objective and 122 measures to realize climate and environmental targets are described in the politically approved 'Climate, environment and energy plan 2018 – 2025'.

Please specify the sectors covered by the target

- [x] Stationary energy
- [x] Agriculture, Forestry, and Other Land Use (AFOLU)
- [ ] Other
- [x] Transport
- [x] Industrial Processes and Product Use (IPPU)
- [x] Waste/wastewater
- [x] Energy generation

Please specify the reduction percentage

Please specify the reduction percentage using only numbers. Example: -10% is introduced as 10.
Up to 2 decimals are allowed.

85

Please specify the target boundary relative to the city's administrative boundary

- (•) Same as the city's administrative boundary
- ( ) Smaller than the city's administrative boundary
- ( ) Larger than the city's administrative boundary
- ( ) Covers part of the city's administrative boundary and adjoining areas

If applicable, please specify the base year

Only values between 1990 and 2021 are allowed

2009

Please specify the target year

Only values between 2021 and 2099 are allowed

2030

Please upload the official source including the stated target

Had your city officially adopted a GHG emissions reduction target in the past (e.g., with a target year up to 2020)?

This question targets overall, cross-sectoral GHG emissions reduction targets

- ( ) Yes
- (•) No

Existing plans

Has your city adopted any cross-sectoral or sectoral strategies or action plans (hereinafter plan) relevant to climate change mitigation/GHG emissions reduction since 2005 (included)?

2005 is indicated as a cut off year across this section of the questionnaire, to ensure the focus is on recent policies and comparability across answers.

- (●) Yes
- ( ) No

How many plans would you like to provide information about?

- ( ) 1
- ( ) 2
- ( ) 3
- ( ) 4
- (●) 5

Plan 1

Please select the type of plan

Other (cross-sectoral) plans can also refer to relevant digital or smart strategies or action plans.

- (●) Sustainable Energy and Climate Action Plan/Sustainable Energy Action Plan (SECAP/SEAP)
- ( ) Sustainable Urban Mobility Plan (SUMP)
- ( ) Sustainable Urban Development Strategy (SuDs)
- ( ) Climate change mitigation plan
- ( ) Other (cross-sectoral)
- ( ) Energy plan
- ( ) Transport plan
- ( ) Waste/wastewater management plan
- ( ) Air quality plan
- ( ) Green infrastructure plan
- ( ) Other (sectoral)

Name

Sustainable Energy and Climate Action Plan

Year of adoption

Only values between 2005 and 2021 are allowed

Please leave it blank if not applicable

2019

End year

Only values between 2005 and 2099 are allowed

Please leave blank if not applicable.

2025

Degree of implementation

- ○ Fully implemented
- ◉ Under implementation
- ○ Not started

Scale of the plan

- ○ Smaller than district/neighbourhood scale
- ○ District/neighbourhood scale
- ◉ City scale
- ○ Greater than city scale

Does this plan contain concrete target(s) for the reduction of GHG emissions?

- ◉ Yes
- ○ No

Please upload any supporting documentation

Plan 2

Please select the type of plan

Other (cross-sectoral) plans can also refer to relevant digital or smart strategies or action plans.

- ○ Sustainable Energy and Climate Action Plan/Sustainable Energy Action Plan (SECAP/SEAP)
- ◉ Sustainable Urban Mobility Plan (SUMP)
- ○ Sustainable Urban Development Strategy (SuDs)
- ○ Climate change mitigation plan
- ○ Other (cross-sectoral)
- ○ Energy plan
- ○ Transport plan
- ○ Waste/wastewater management plan
- ○ Air quality plan
- ○ Green infrastructure plan
- ○ Other (sectoral)

Name

Sustainable Urban Mobility Plan

Year of adoption

Only values between 2005 and 2021 are allowed

Please leave it blank if not applicable

2016

End year

Only values between 2005 and 2099 are allowed

Please leave blank if not applicable.

2030

Degree of implementation

- ○ Fully implemented
- ◉ Under implementation
- ○ Not started

Scale of the plan

- ○ Smaller than district/neighbourhood scale
- ○ District/neighbourhood scale
- ◉ City scale
- ○ Greater than city scale

Does this plan contain concrete target(s) for the reduction of GHG emissions?

- ○ Yes
- ◉ No

Please upload any supporting documentation

Plan 3

Please select the type of plan

Other (cross-sectoral) plans can also refer to relevant digital and smart strategies or action plans.

- ○ Sustainable Energy and Climate Action Plan/Sustainable Energy Action Plan (SECAP/SEAP)
- ○ Sustainable Urban Mobility Plan (SUMP)
- ◉ Sustainable Urban Development Strategy (SuDs)
- ○ Climate change mitigation plan
- ○ Other (cross-sectoral)
- ○ Energy plan
- ○ Transport plan
- ○ Waste/wastewater management plan
- ○ Air quality plan
- ○ Green infrastructure plan
- ○ Other (sectoral)

Name

Sustainable Urban Development Strategy

Year of adoption

Only values between 2005 and 2021 are allowed

Please leave it blank if not applicable

2020

End year

Only values between 2005 and 2099 are allowed

Please leave blank if not applicable.

2032

Degree of implementation

- ○ Fully implemented
- ◉ Under implementation
- ○ Not started

Scale of the plan

- ○ Smaller than district/neighbourhood scale
- ○ District/neighbourhood scale
- ◉ City scale
- ○ Greater than city scale

Does this plan contain concrete target(s) for the reduction of GHG emissions?

- ○ Yes
- ◉ No

Please upload any supporting documentation

Plan 4

Please select the type of plan

Other (cross-sectoral) plans can also refer to relevant digital and smart strategies or action plans.

- ○ Sustainable Energy and Climate Action Plan/Sustainable Energy Action Plan (SECAP/SEAP)
- ○ Sustainable Urban Mobility Plan (SUMP)
- ○ Sustainable Urban Development Strategy (SuDs)
- ○ Climate change mitigation plan
- ○ Other (cross-sectoral)
- ○ Energy plan
- ○ Transport plan
- ◉ Waste/wastewater management plan
- ○ Air quality plan
- ○ Green infrastructure plan
- ○ Other (sectoral)

Name

Wastewater Management Plan

Year of adoption

Only values between 2005 and 2021 are allowed

Please leave it blank if not applicable

2015

End year

Only values between 2005 and 2099 are allowed

Please leave blank if not applicable.

2030

Degree of implementation

- ○ Fully implemented
- ◉ Under implementation
- ○ Not started

Scale of the plan

- ○ Smaller than district/neighbourhood scale
- ○ District/neighbourhood scale
- ◉ City scale
- ○ Greater than city scale

Does this plan contain concrete target(s) for the reduction of GHG emissions?

- ○ Yes
- ◉ No

Please upload any supporting documentation

Plan 5

Please select the type of plan

Other (cross-sectoral) plans can also refer to relevant digital and smart strategies or action plans.

- ○ Sustainable Energy and Climate Action Plan/Sustainable Energy Action Plan (SECAP/SEAP)
- ○ Sustainable Urban Mobility Plan (SUMP)
- ○ Sustainable Urban Development Strategy (SuDs)
- ○ Climate change mitigation plan
- ○ Other (cross-sectoral)
- ○ Energy plan
- ○ Transport plan
- ○ Waste/wastewater management plan

- (●) Air quality plan
- ( ) Green infrastructure plan
- ( ) Other (sectoral)

Name

Air Quality Plan

Year of adoption

Only values between 2005 and 2021 are allowed

Please leave it blank if not applicable

2019

End year

Only values between 2005 and 2099 are allowed

Please leave blank if not applicable.

2023

Degree of implementation

- ( ) Fully implemented
- (●) Under implementation
- ( ) Not started

Scale of the plan

- ( ) Smaller than district/neighbourhood scale
- ( ) District/neighbourhood scale
- (●) City scale
- ( ) Greater than city scale

Does this plan contain concrete target(s) for the reduction of GHG emissions?

- ( ) Yes
- (●) No

Please upload any supporting documentation

One of the plans you previously selected was "Sustainable Energy and Climate Action Plan /Sustainable Energy Action Plan (SECAP/SEAP)". Was the mitigation pillar of your plan accepted following analysis by the JRC?

- ( ) Yes (SEAP 2020)
- ( ) Yes (SECAP 2030)
- ( ) Under evaluation
- (●) Not yet reported

Current policies - energy

Which of the following areas does your city's current energy policy address?

Please consider also facilities and equipment in building-related options.
- "Building electrification" is the process of switching from fossil fuels to clean and renewable electricity (e.g., for heating, for cooking)
- "Integrating RES systems into the building" refers to any active/passive envelope system that uses Renewable Energy Sources (RES) from the natural environment to produce power or thermal energy. Examples: building-integrated photovoltaics (BIPV), building-integrated solar thermal (BIST), thermoelectric embedded envelopes.
- "Virtual power plants" are networks of decentralised, medium-scale power generating units such as wind farms, solar parks, and Combined Heat and Power (CHP) units, as well as flexible power consumers and storage systems.
- “Urban heat island effect mitigation” encompasses any strategies that aim at reducing the outdoor temperature in the city with associated energy savings. This is typically performed by tackling the causes for local temperature levels significantly higher compared to the surrounding rural areas (e.g., human activities, the replacement of natural features with man-made materials, the alteration of the wind pathways and force by urban roughness and layouts).

- [x] Nearly Zero Energy Buildings (NZEBs) (new buildings)
- [ ] Positive Energy Buildings
- [x] Nearly Zero Energy Buildings (NZEBs) (renovation of existing buildings)
- [x] Energy renovation/retrofit of existing buildings (below NZEB level)
- [ ] Building electrification
- [x] Energy efficient electrical appliances
- [ ] Integrating RES systems into the building
- [x] Building Automation and Control Systems (BACS) /Building Energy Management Systems (BEMS)
- [ ] Nearly Zero / Positive Energy Districts
- [x] Digitalisation and smart city solutions
- [ ] Local heat/cold storage
- [x] Street lighting
- [ ] Citizen and renewable energy communities
- [ ] On-site and nearby renewable energy generation (electricity, heat/cold)
- [ ] Local (off-site) renewable energy generation (electricity, heat/cold)
- [x] District heating/cooling
- [ ] Demand response
- [ ] Virtual power plants
- [ ] Urban heat island effect mitigation
- [ ] Mixed-use development and sprawl containment
- [ ] Urban regeneration
- [x] Behavioural changes

Which type of energy policy measures does your city currently apply?

- [x] Regulatory (e.g. building codes / standards, minimum energy performance standards, public procurement rules, energy supplier obligations)
- [ ] Financial incentives and fiscal instruments (e.g. grants, loans, soft loans, taxes, subsidies)
- [ ] Public Private Partnerships
- [x] Information/awareness raising (e.g. energy audits, certification and labelling of energy efficiency performance)
- [ ] Education/capacity building (e.g. qualification programmes in the sector, trainings)
- [x] Infrastructure measures (e.g. upgrade of power plants, increase of RES capacity, smart grids)
- [x] Planning solutions (e.g. integrated land use and urban planning, integrated long-term strategies for sub-sectors, such as institutional buildings)
- [ ] Voluntary measures (e.g. industry voluntary agreement programmes)
- [x] Technical measures (e.g. smart metering, provision of energy efficient products and services)

Which of the following building categories are targeted by your current energy policy measures?

For definitions of residential, commercial, institutional and industrial buildings and facilities, please consult the GCoM CRF Guidance Note on page 24, available at https://www.globalcovenantofmayors.org/wp-content/uploads/2019/04/Data-TWG_Reporting-Framework_GUIDANCE-NOTE.pdf. For social housing and historical buildings nationally applicable definitions should be used.

- [ ] Residential buildings
- [x] Institutional buildings and facilities
- [x] Social housing
- [ ] Commercial buildings and facilities
- [ ] Industrial buildings and facilities
- [x] Historical buildings

What percentage of the energy consumed within your city administrative boundary comes from Renewable Energy Sources (RES)?

RES include: wind, solar (solar thermal and solar photovoltaic) and geothermal energy, ambient energy, tide, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas, and biogas. In answering this question, 1) all energy consumption within the administrative boundary should be included, and 2) any green electricity certificates (i.e. green electricity produced outside the boundaries) have to be accounted for.

- ( ) No energy consumption from RES
- ( ) 20%-39%
- (•) 60%-80%
- ( ) Not known
- ( ) Below 20%
- ( ) 40%-59%
- ( ) Over 80%

What percentage of energy generated within the administrative boundary comes from RES?

- ( ) No energy generation (from any sources)
- ( ) 20%-39%
- (•) 60%-80%
- ( ) Not known
- ( ) Below 20%
- ( ) 40%-59%
- ( ) Over 80%

Which RES sources are currently used to generate energy within your city's administrative boundary?

'Ambient energy' means naturally occurring thermal energy and energy accumulated in the environment with constrained boundaries, which can be stored in the ambient air, excluding in exhaust air, or in surface or sewage water. For more information, please consult the Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (RED II).

- [x] Wind
- [x] Ambient energy
- [x] Sustainable biomass
- [x] Solar (solar thermal and solar photovoltaic)
- [ ] Tide, wave and other ocean energy
- [ ] Landfill gas, sewage treatment plant gas, and biogas
- [x] Geothermal energy
- [x] Hydropower

Which non-renewable energy carriers are currently used to generate energy within your city's administrative boundary?

- [ ] Coal
- [ ] Nuclear
- [ ] Other
- [x] Gas
- [x] Oil
- [ ] None

Current policies - transport

Which of the following areas does your city's current transport policy address?

- [x] Cleaner/efficient vehicles
- [x] Clean buses
- [x] Electric vehicles (incl. infrastructure)
- [ ] Investment in metros and railways
- [x] Accessibility of public transport
- [ ] Multi-modal hubs/integration between transport modes
- [ ] Micromobility
- [ ] Mobility as a Service (MaaS)
- [ ] Improvement of logistics and urban freight transport
- [ ] Road network optimisation aiming at emission reduction

- [x] Modal shift to walking & cycling, incl. infrastructure
- [ ] Car sharing
- [ ] Ride-sharing/car-pooling initiatives
- [ ] Park and ride facilities
- [x] Mixed use development and sprawl containment
- [x] Digitalisation and smart city solutions
- [ ] Eco-driving (driving behaviour and style to reduce fuel consumption and emissions)

Which type of transport policy measures does your city apply?

Congestion pricing consists of charging of users of private vehicles in periods of peak demand in designated areas of the city.

- [x] Technical measures (e.g. smart cards for public transport)
- [x] Infrastructure measures (e.g. cycling lanes, recharging stations for electric cars)
- [ ] Regulation based measures (e.g. vehicle access regulations like Low or Zero Emission Zones)
- [x] Planning solutions (e.g. SUMP or integrated land use and transport planning)
- [x] Financial incentives and fiscal instruments (e.g. subsidies, taxes, congestion pricing schemes)
- [ ] Public Private Partnerships
- [ ] Voluntary measures with stakeholders
- [x] Information/awareness raising (e.g. awareness campaigns)

Does the issuing of [new] building permits require the constructor/promoter to provide charging stations for electric vehicles / e-bikes etc?

- [ ] Yes, for office buildings and/or education buildings
- [ ] Yes, for commercial/ entertainment buildings
- [ ] Yes, for residential buildings
- [x] No

Current policies - waste/wastewater management

Which of the following areas does your city's current waste/wastewater management policy address?

Examples.
- 'Promotion of the use of recycled and recyclable' include sustainably managed wood, hedges instead of fences.
- 'Litter prevention in public spaces and/or marine litter prevention" includes measures to fight street littering, measures aimed at reducing the use of unnecessary packaging, and bans on free plastic carrier bags.
- 'Industrial symbiosis between local businesses' includes all processes by which wastes or by-products of an industry or industrial process become the raw materials for another.
- 'Sustainable buildings' applies to either new builds or refurbishments – using recycled materials or innovative designs that will increase the life-time of buildings and/or allow them to be more easily recycled in the future.
- 'Circular economy business models …' include setting up repair cafes, bicycle repair cooperatives, product leasing schemes, product char or exchange schemes.

- [ ] Use of recycled and recyclable, renewable and sustainable materials
- [x] Management of biodegradable municipal waste
- [ ] Municipal waste prevention
- [x] Food waste prevention
- [ ] Redirecting food surplus and food scraps
- [ ] Sustainable buildings
- [x] Circular economy business models, aimed at encouraging the reuse, repair and/or recycling of products
- [x] Efficient thermal treatment/ landfill management
- [ ] Efficient waste /landfill gas to energy / fuel
- [ ] Wastewater reuse

- [x] Litter prevention in public spaces and/or marine litter prevention
- [x] Stormwater management
- [ ] Industrial symbiosis between local businesses

Which type of waste/wastewater management policy measures does your city currently apply?

- [x] Regulatory (e.g. bans or restrictions on single use or non-recyclable materials, regulations for durability, reparability and recycling in public procurement)
- [ ] Financial incentives and fiscal instruments (e.g. grants, loans, soft loans, taxes, subsidies, fees / incentives for volume based waste collection)
- [ ] Public Private Partnerships
- [x] Information/awareness raising (e.g. litter prevention campaigns, recycling campaigns)
- [x] Infrastructure measures (e.g. reprocessors, recycling centres, waste-to-energy facilities)
- [x] Voluntary measures with stakeholders

Which of the following fractions are collected and/or sorted separately in your city?

- [x] Plastics
- [x] Cardboard and paper
- [x] Food waste
- [x] Waste electrical and electronic equipment
- [x] Glass
- [x] Metal
- [x] Garden/Yard waste
- [x] Hazardous waste

Current policies - digitalisation & smart city elements

Which of the following elements does your city have in place to enable or incentivise digitalisation and smart city solutions intended to support the transition towards climate neutrality?

Definition
"Smart city": urban area that uses various types of sensors to collect data electronically to provide information, that is used to manage assets and resources efficiently. This includes data collected from citizens, devices, and assets that are processed and analysed to monitor and manage traffic and transportation systems, power plants, water-supply networks, waste/wastewater management, law enforcement, information systems, schools, libraries, hospitals, and other community services.

Policies and strategies can be either standalone or part of a broader urban/innovation/sustainability strategy/policy. For "Innovation procurement strategies", please refer to Section 7.6 of the InfoKit.

- [ ] Digitalisation or smart city strategies
- [ ] Innovation procurement strategies
- [x] Use of Internet-of-Things technology
- [ ] Digitalisation or smart city policies
- [x] Data governance strategy (national or local)
- [ ] Digital Twins
- [ ] ICT infrastructure to enable smart city solutions
- [ ] Use of open standards by preference

Does your city run any smart city projects?

- (●) Yes
- ( ) No
- ( ) Planned

How does your city obtain the expertise and skills to support the implementation of smart city solutions?

- [ ] Not known
- [x] Work with external organisation/expert
- [x] Available in-house
- [x] Project based collaboration (e.g. with other cities, private or public entities)]

Does your city carry out impact assessments of the smart city solutions in place?

Please consider environmental impact assessments among others (economic, social etc.).

- ( ) Yes
- (•) No

How has your city funded or financed the implementation of smart city solutions?

Useful definitions:
- PPP = a partnership between the public and private sectors to deliver services to the public.
- Blended finance = financial mechanisms that use public (or philanthropic) funds to attract additional private finance for projects.

- [ ] EU funding
- [ ] Public-private partnership (PPP)
- [ ] Blended finance
- [x] National and/or regional funding
- [ ] Private investment
- [x] City budget

Has your city worked with other stakeholders to implement smart city projects?

- [ ] No
- [x] Private sector
- [ ] Other cities
- [ ] Academia/R&I institutions
- [ ] National/regional authorities
- [ ] NGOs and associations

Has your city used any open innovation approaches and methods to enable testing, piloting or demonstration of integrated smart-city solutions?

Useful definitions:
- Testbeds = technological testing, piloting and demo-infrastructures which are part of real-life systems (e.g. energy system).
- Living Labs = user-centred, open innovation ecosystems based on a systematic approach to user co-creation, integrating research and innovation processes in real life communities and settings.
- Regulatory sandboxes = frameworks which, by providing a structured context for experimentation, enable where appropriate in a real-world environment the testing of innovative technologies, products, services or approaches – at the moment especially in the context of digitalisation – for a limited time and in a limited part of a sector or area under regulatory supervision ensuring that appropriate safeguards are in place (https://www.consilium.europa.eu/en/press/press-releases/2020/11/16/regulatory-sandboxes-and-experimentation-clauses-as-tools-for-better-regulation-council-adopts-conclusions/)

For further information on open innovation approaches please refer to the InfoKit, Part II, Section 7.8, page 61.

- [x] No
- [ ] Living labs
- [ ] Other
- [ ] Testbeds
- [ ] Regulatory sandboxes

Please provide additional information about the smart cities and digitalisation projects referred to in the previous questions.

1000 character(s) maximum

Please list specific strategies, policies, and projects related to your previous answers.

Sensor monitoring and system automation for energy efficiency in public and commercial buildings and the city's water distribution pipelines. New automation systems in buildings to optimise indoor climate. Pressure monitoring in water pipelines used for maintenance management and system control. Specific measures include reducing working pressure in the system at night to limit leaks.

You may upload any supporting documentation here.

Measures

Is your city successfully implementing or has successfully implemented key climate change mitigation/GHG reduction measures since 2005 (included)?

Key measures could be those which stand out in terms of impact, innovation, resource-efficiency, cost-efficiency, time-efficiency, replicability.

- (●) Yes
- ( ) No

How many key measures would you like to provide information about?

- ( ) 1
- ( ) 2
- ( ) 3
- ( ) 4
- (●) 5

Measure 1

Measure (short description)

200 character(s) maximum

Electrification of municipal services transport: purchasing of EV's and establishing charging infrastructure to phase out use of fossile cars; by 2025 70% of the car park must be EV.

Sector(s) covered

"Cross-sectoral" can include relevant measures linked to digital transition.

- [ ] Stationary energy
- [ ] Agriculture, Forestry, and Other Land Use (AFOLU)
- [ ] Cross-sectoral
- [x] Transport
- [ ] Industrial Processes and Product Use (IPPU)
- [ ] Waste/wastewater
- [ ] Energy generation

Degree of implementation

- ( ) Fully implemented
- (●) Under implementation
- ( ) Not started

Scale

- ( ) Smaller than district/neighbourhood scale
- ( ) District/neighbourhood scale
- (●) City scale

- ( ) Greater than city scale

Description of achievements relevant to climate neutrality

500 character(s) maximum

This can include the estimated emission reduction, energy savings, or a description of other performance indicators specific to the measure

December 2021, 20% of the car park is now EV and 100 of needed 350 charging points are installed throughout the municipality.

Measure 2

Measure (short description)

200 character(s) maximum

Decreasing emissions of building/construction activities through dialog and emission requirements in procurements

Sector(s) covered

"Cross-sectoral" can include relevant measures linked to digital transition.

- [x] Stationary energy
- [ ] Agriculture, Forestry, and Other Land Use (AFOLU)
- [ ] Cross-sectoral
- [ ] Transport
- [ ] Industrial Processes and Product Use (IPPU)
- [ ] Waste/wastewater
- [ ] Energy generation

Degree of implementation

- ( ) Fully implemented
- (•) Under implementation
- ( ) Not started

Scale

- ( ) Smaller than district/neighbourhood scale
- ( ) District/neighbourhood scale
- (•) City scale
- ( ) Greater than city scale

Description of achievements relevant to climate neutrality

500 character(s) maximum

This can include the estimated emission reduction, energy savings, or a description of other performance indicators specific to the measure

From 2022 it will no longer be allowed to use fossil fuel driven processes at construction sides. Machines should be bio-fuel driven or use zero-emission technology. Heating and drying of buildings under construction must be fossile free and preferrably using zero-emission technologies. Electricity and district heating will be applied for heating/drying where possible.

Measure 3

Measure (short description)

200 character(s) maximum

Urban Growth Agreement 'Tenk Tromsø' targets zero growth of transport in spite of the city's growth in terms of number of citizens and economic development/industrial growth.

Sector(s) covered

"Cross-sectoral" can include relevant measures linked to digital transition.

- [ ] Stationary energy
- [ ] Agriculture, Forestry, and Other Land Use (AFOLU)
- [ ] Cross-sectoral
- [x] Transport
- [ ] Industrial Processes and Product Use (IPPU)
- [ ] Waste/wastewater
- [ ] Energy generation

Degree of implementation

- ( ) Fully implemented
- (•) Under implementation
- ( ) Not started

Scale

- ( ) Smaller than district/neighbourhood scale
- ( ) District/neighbourhood scale
- (•) City scale
- ( ) Greater than city scale

Description of achievements relevant to climate neutrality

500 character(s) maximum

This can include the estimated emission reduction, energy savings, or a description of other performance indicators specific to the measure

The agreement concerns a project with clear targets for 2030 regarding transport in Tromsø. The project knows several subprojects that aim at establishing better and higher use of public transport, implementation of road pricing, establishing better infrastructure for cyclists and pedestrians. The implementation of the project just started.

Measure 4

Measure (short description)

200 character(s) maximum

Fjuel, charging infrastructure for electrification of harbor transport activities

Sector(s) covered

"Cross-sectoral" can include relevant measures linked to digital transition.

- [ ] Stationary energy
- [ ] Agriculture, Forestry, and Other Land Use (AFOLU)
- [ ] Cross-sectoral
- [x] Transport
- [ ] Industrial Processes and Product Use (IPPU)
- [ ] Waste/wastewater
- [ ] Energy generation

Degree of implementation

- ( ) Fully implemented
- (•) Under implementation
- ( ) Not started

Scale

- ( ) Smaller than district/neighbourhood scale
- ( ) District/neighbourhood scale
- (•) City scale
- ( ) Greater than city scale

Description of achievements relevant to climate neutrality

500 character(s) maximum

This can include the estimated emission reduction, energy savings, or a description of other performance indicators specific to the measure

Fjuel, established in 2020, a joint venture of the local power grid company and Tromsø port, responsible for developing charging infrastructure to reduce harbor emissions of land transport, ships at the quays, and hybrid and electric boats and ferries. Expected decrease of shipping GHG emissions 8000 tons CO2 eq yearly in 2030.

Measure 5

Measure (short description)

200 character(s) maximum

Introduction of eBikes as means of transport for municipal employees.

Sector(s) covered

"Cross-sectoral" can include relevant measures linked to digital transition.

- [ ] Stationary energy
- [ ] Agriculture, Forestry, and Other Land Use (AFOLU)
- [ ] Cross-sectoral
- [x] Transport
- [ ] Industrial Processes and Product Use (IPPU)
- [ ] Waste/wastewater
- [ ] Energy generation

Degree of implementation

- ( ) Fully implemented
- (•) Under implementation
- ( ) Not started

Scale

- ○ Smaller than district/neighbourhood scale
- ○ District/neighbourhood scale
- ◉ City scale
- ○ Greater than city scale

Description of achievements relevant to climate neutrality

500 character(s) maximum

This can include the estimated emission reduction, energy savings, or a description of other performance indicators specific to the measure

In 2020, the municipality bought 19 ebikes for several of its service locations, to be used by its employees. eBikes replace now to a good extent the use of cars and taxis. This is a relevant lead in Tromsø's cycling strategy to promote the use of eBikes in the arctic city of Tromsø with long winters and heavy snowfall

R&I projects

Has your city participated in any European R&I projects relevant to climate change mitigation/GHG emissions reduction since 2005 (included)?

You may also include relevant projects linked to digital transformation.

- ◉ Yes
- ○ No

How many R&I projects would you like to provide information about?

- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ◉ 5

R&I project 1

Project Name

100 character(s) maximum

INCLUDE: national project for studying socially inclusive energy transition

Framework Programme

- ○ Horizon 2020/Horizon Europe
- ○ Framework Programme 7 (FP7)
- ○ Framework Programme 6 (FP6)
- ○ Connecting Europe Facility (CEF)
- ○ Digital Europe Programme (DIGITAL)
- ○ Structural Funds
- ○ JPI Urban Europe projects
- ◉ Other
- ○ Not applicable

How would you describe the role of your city in the initiative?

- ○ Pilot city
- ○ Case study
- ◉ Partner/follower

- ○ Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2030 climate neutrality target

500 character(s) maximum

The overall goal is to conduct critical research that contributes to a just transformation to a climate and environmentally friendly society via collaboration between researchers and practitioners. It addresses municipalities as change agents for societal stakeholders' participation and co-creating in realizing a low-emission society. Tromsø is a pilot in the development of the climate budget as a tool for change. Led by the University of Oslo, 7 research- and 22 other partners.

R&I project 2

Project Name

100 character(s) maximum

Solar Charge: Increased Self Consumption of Photo-Voltaic Power for EV Charging in Virtual Networks

Framework Programme

- ◉ Horizon 2020/Horizon Europe
- ○ Framework Programme 7 (FP7)
- ○ Framework Programme 6 (FP6)
- ○ Connecting Europe Facility (CEF)
- ○ Digital Europe Programme (DIGITAL)
- ○ Structural Funds
- ○ JPI Urban Europe projects
- ○ Other
- ○ Not applicable

How would you describe the role of your city in the initiative?

- ○ Pilot city
- ◉ Case study
- ○ Partner/follower
- ○ Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2030 climate neutrality target

500 character(s) maximum

The project investigated how solar energy can be used for electric vehicle (EV) charging on a city scale, with case studies of Tromsø and Uppsala, Sweden. The objective was to increase the renewable energy share in EV charging, and reduce the strain on the power grid through increased self-consumption of solar energy. The project contributed to the knowledge of the solar energy potential in Tromsø, especially on buildings, and shed light on how EVs can influence energy consumption profiles.

R&I project 3

Project Name

100 character(s) maximum

IMPETUS: Information management for the implementation of climate adaptation in European regions

Framework Programme

- (●) Horizon 2020/Horizon Europe
- ( ) Framework Programme 7 (FP7)
- ( ) Framework Programme 6 (FP6)
- ( ) Connecting Europe Facility (CEF)
- ( ) Digital Europe Programme (DIGITAL)
- ( ) Structural Funds
- ( ) JPI Urban Europe projects
- ( ) Other
- ( ) Not applicable

How would you describe the role of your city in the initiative?

- (●) Pilot city
- ( ) Case study
- ( ) Partner/follower
- ( ) Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2030 climate neutrality target

500 character(s) maximum

IMPETUS will develop and validate a cross-sectoral climate change adaptation framework to accelerate the transition towards a climate-neutral and sustainable economy, empowering citizens and societal actors in the co-design of adaptation packages and related implementation pathways. Tromsø city will host one of the Resilience Knowledge Boosters in the project, where a digital twin is created to demonstrate, monitor, share and assess the climate adaptation between stakeholders in European cities.

R&I project 4

Project Name

100 character(s) maximum

URSA MAJOR: Urban Sustainability in Action: Multidisciplinary Approach via Joint Research Schools

Framework Programme

- ( ) Horizon 2020/Horizon Europe
- ( ) Framework Programme 7 (FP7)
- ( ) Framework Programme 6 (FP6)
- ( ) Connecting Europe Facility (CEF)
- ( ) Digital Europe Programme (DIGITAL)
- ( ) Structural Funds
- ( ) JPI Urban Europe projects
- (●) Other
- ( ) Not applicable

How would you describe the role of your city in the initiative?

- ( ) Pilot city
- ( ) Case study
- (●) Partner/follower
- ( ) Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2030 climate neutrality target

500 character(s) maximum

URSA MAJOR contributes with education and training of future Smart Cities' stakeholders. It provides digital technologies that will help urban transformation into sustainable, resilient, zero-emission cities. It seeks for climate-energy-society nexus that integrates with nature-based solutions. Project targets digitalization of collection, storage, analysis, and usage of urban environmental information - strongly underused in decision-making but highly demanded by zero-emission societies.

R&I project 5

Project Name

100 character(s) maximum

ClimeFish: Decision support framework for sustainable fish production in Europe under climate change

Framework Programme

- (●) Horizon 2020/Horizon Europe
- ( ) Framework Programme 7 (FP7)
- ( ) Framework Programme 6 (FP6)
- ( ) Connecting Europe Facility (CEF)
- ( ) Digital Europe Programme (DIGITAL)
- ( ) Structural Funds
- ( ) JPI Urban Europe projects
- ( ) Other
- ( ) Not applicable

How would you describe the role of your city in the initiative?

- ( ) Pilot city
- ( ) Case study
- (●) Partner/follower
- ( ) Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2030 climate neutrality target

500 character(s) maximum

ClimeFish identified risks and opportunities of affected ecosystem services and propose potential mitigation strategies. In co-creation with stakeholders, we developed guidelines for making Climate Adaptation Plans for fisheries and aquaculture now published as a European voluntary standard (CWA 17518:2020). The guidelines have been presented to DG Mare, are disseminated trough Climate-ADAPT, and will be applied to seafood production in Tromsø to reduce carbon footprint.

Initiatives

Has your city joined any other specific initiatives relevant to climate change mitigation/GHG emissions reduction since 2005 (included)?

Examples of initiatives:
- Covenant of Mayors for Climate and Energy
- 100 Intelligent Cities Challenge/Digital Cities Challenge
- Urban Innovative Actions
- Smart Cities Marketplace initiatives
- EIT Climate KIC initiatives
- New European Bauhaus

- Green City Accord
- CIVITAS
- URBACT programme
- Affordable Housing Initiative
- City Science Initiative
- Living-in.eu Movement

If relevant to climate neutrality, also national initiatives can be mentioned here.

- (●) Yes
- ( ) No

How many initiatives would you like to provide information about?

- (●) 1
- ( ) 2
- ( ) 3
- ( ) 4
- ( ) 5

Initiative 1

Initiative Name

100 character(s) maximum

Examples of initiatives:
- Covenant of Mayors for Climate and Energy
- 100 Intelligent Cities Challenge/Digital Cities Challenge
- Urban Innovative Actions
- Smart Cities Marketplace initiatives
- EIT Climate KIC initiatives
- New European Bauhaus
- Green City Accord
- CIVITAS
- URBACT programme
- Affordable Housing Initiative
- City Science Initiative
- Living-in.eu Movement

If relevant to climate neutrality, also national initiatives can be mentioned here.

Convenant of Mayors

How would you describe the role of your city in the initiative?

Definition and examples for each term.
The city is considered:
- a “demonstrator”, if the city has served as proof of concept and has implemented any of the outcomes of the initiative (e.g. tools/tests/trials). Other similar phrases used to describe demonstrators are pilot cities, demo sites, case studies, early adopters, living labs, organisers, and leaders;
- a “replicator”, if the city has served to expand the applicability of a concept by implementing any of the outcomes of the initiative. Other similar words used to describe replicators are mentees, twin cities, companion cities, partner cities;

- an “observer”, if the city participated in a process concerning the outcomes of the initiative without any implemented action;
- other, if none of the definitions above describes the role of the city in the initiative.
Follower cities could fall under replicator or observer, depending on whether they implement any action or not.

- ( ) Demonstrator
- ( ) Observer
- ( ) Not known
- ( ) Replicator
- (•) Other
- ( ) Not applicable

If other, please specify. If not applicable, please briefly explain

300 character(s) maximum

We have joined as member, however our SECAP is not yet registered.

Briefly specify how this initiative has contributed or is expected to contribute to your city advancing towards the 2030 climate neutrality target

500 character(s) maximum

By joining the Covenant of Mayors, Tromsø will further its climate commitment by integrating and aligning its SECAP to acknowledged European reporting and monitoring standards. It allows the city to take part in an extensive network of municipalities in Europe and it will inspire and motivate us to share experiences through collective learning and trigger new ideas. Joining such networks stimulates the ability to accelerate transitions and obtain results.

Awards

Has your city ever been nominated for or participated in any awards or competitions relevant to climate change mitigation/GHG emissions reduction since 2005 (included)?

- ( ) Yes
- (•) No

Current policies - co-benefits and adverse impacts

Have there been attempts in your city to assess the possible co-benefits/adverse impacts generated by local scale climate mitigation policies/actions and/or vice versa?

- ( ) Yes, for all climate policies/actions
- ( ) Yes, for most climate policies/actions
- ( ) Yes, for some climate policies/actions
- (•) Preparing to perform such assessments over the next year
- ( ) Intending to perform such assessments in the next 2 years
- ( ) Not intending to perform such assessments
- ( ) I don't know

Ambition for climate neutrality

This section gives you the opportunity to articulate your city's motivation for joining the Cities Mission and in particular the climate neutrality ambition it intends to pursue as part of the Mission. You are invited to describe your city's initial vision on how it can accelerate its plans, if necessary, to close the gap to be climate neutral in 2030 and in particular how it plans to do so in cooperation with its citizens, regional/national stakeholders, and the EU.

It is well understood that most cities are at an early stage of determining a vision on becoming climate neutral and that no detailed analysis or planning might have been undertaken regarding how to accelerate the transition to reach climate neutrality by 2030. As outlined also in the Info Kit for cities, these details are expected to be set out later, in the process of developing the Climate City Contract in the next phase of the Cities Mission, with assistance from the Mission Platform.

Questions in this section address your city's 2030 climate neutrality target, but they do not assume or require that this target has been officially adopted. Rather, they seek to understand the aspiration that your city wants to work towards as part of the Cities Mission.

You have the opportunity to describe existing (i.e. officially adopted/declared) targets and plans in other sections of the questionnaire.

Your city's overall vision

Please describe your city's vision on how it will achieve climate neutrality by 2030, i.e. how the city plans to accelerate the transition and close the gap to (net-) zero GHG emissions by 2030

4000 character(s) maximum

In answering this question, please consider the following elements:
- Overall vision and motivation;
- Sector-specific vision and key measures;
- Integration and horizontal aspects.

Cities that are located in countries already with Association Agreements to the Horizon Europe programme or in the process of negotiating such Agreements should explain here how they will be able to meet the objectives of the Mission without support from other EU programmes.

Tromsø experiences first-hand impacts of climate change in the Arctic which affect the local population and global climate systems. Since its establishment, the city has been at the heart of discoveries, as the starting point for historic polar explorers to the home of cutting-edge space technology. The ambition is to translate this pioneering history toward a sustainable future. Geopolitical developments and new economic opportunities arising in the Arctic drive interest from many international actors.
As the Arctic Capital, many Arctic institutions and international organizations, such as the Arctic Council, have their headquarters in Tromsø. The University Hospital of North Norway and UiT The Arctic University of Norway are nationally and internationally renowned research facilities. Each year, scientists and decision-makers come together at the Arctic Frontiers conference in Tromsø.
Our vision as the Arctic Capital is to drive sustainable development and cooperation across the global Arctic region. Joining the EU Cities' Mission will contribute substantially to our ability to play the role of an Arctic green frontrunner. Due to its geographical position and high concentration of innovation centers, the city is a regional research and logistics hub with a well-developed infrastructure that is especially well-suited to support the blue economy: fisheries, aquaculture, and other ocean industries. The relatively young population is highly educated (above the national average) and Tromsø is home to people from 140 nations. The city is a popular destination for global tourists as Tromsø offers a unique combination of urban qualities with arts and culture and proximity to spectacular nature. This is a valuable opportunity to showcase ideas and solutions with which visitors will travel back home.
Enabling the green transition is key to future living conditions for indigenous peoples and other inhabitants of our region. Remoteness, cold and harsh conditions need to be addressed and solutions devised here can contribute to a green transition in many other northern, coastal, and mountainous locations. Furthermore, through our position in the Arctic Mayors Forum and a close relationship to Svalbard, Tromsø is well placed to share acquired experiences and best practices beyond Europe and around the global north. The municipality has established a baseline for its status concerning the UN Sustainable Development Goals through the United 4 Smart Sustainable Cities methodology. This report represents a guiding benchmark for pursuing climate neutrality.
Accelerating the green transition will depend on the ability of Tromsø to coordinate and integrate relevant policies and measures across sectors and in the region. Many institutions and companies have already expressed a strong commitment to climate neutrality by 2030 and the EU Cities Mission. A thorough revision of a more integrated and inclusive municipal planning and programming regime has been launched. In April 2022, an update of the Climate, Environment, and Energy Plan will imply broad involvement of citizens. The city has also developed a Smart Democracy concept to explore new ways of deliberative methods in local policy-making. Important next steps will be to develop climate communication and climate content in curricula in all levels of education as well as outreach events to citizens in collaboration with NGOs that represent multiple social interests and diverse groups.
Tromsø has been proactive in dialogues with regional and national authorities which have expressed their willingness to support Norwegian cities that may become part of the Mission. We count on the EEA, regional and national funds, and the Nordic Council of Ministers, who share the same green vision as the EU. Finally, a green transition in the north is an objective in Norway´s and the EU Arctic strategy, meaning efforts that are undertaken by Tromsø should enjoy wide support and application.

Your city's ambition

Is your city aiming at climate neutrality by reaching absolute-zero or net-zero GHG emissions by 2030?

Definitions:
- Absolute-zero GHG emissions: 100% of greenhouse gas emissions are avoided, i.e. the city no longer emits or causes any greenhouse gases directly, or indirectly through the consumption of grid-supplied energy in the sectors

/scopes covered by the climate neutrality definition of the Cities Mission.
- Net-zero GHG emissions: the balance between direct reduction and offsetting of residual emissions is zero.
Both absolute-zero and net-zero GHG emissions are in line with the definition of climate neutrality applied for the Cities Mission. See InfoKit, Part I, Chapter 3, page 10 for more information.

- ○ Absolute-zero GHG emissions
- ◉ Net-zero GHG emissions
- ○ To be determined in the next phase of the Mission

If "net-zero GHG emissions", please specify the estimated magnitude of residual emissions by 2030

Residual emissions: GHG emissions which are very difficult or disproportionately costly to mitigate by 2030

- ○ 0-10 %
- ○ 11-20 %
- ○ Over 20%
- ◉ To be determined in the next phase of the Mission

If "net-zero GHG emissions", in which sectors do you expect to have residual emissions which cannot be fully abated by 2030?

- ☐ Not yet known
- ☑ Transport
- ☑ Agriculture, Forestry, and Other Land Use (AFOLU)
- ☑ Energy generation
- ☐ Stationary energy
- ☑ Waste/wastewater
- ☐ Industrial Processes and Product Use (IPPU)

If "net-zero GHG emissions", does your city already have a strategy or vision for how to address residual emissions?

Within the Mission, there will be two ways for a city to compensate residual emissions in order to reach net-zero: carbon sinks and carbon credits. See InfoKit, Part I, Section 3.2, page 13 for more information.

- ○ Yes, we have a clear strategy and can describe it
- ○ Yes, we have a vision and can describe it
- ◉ No, further analysis and/or support in establishing the estimated level of residual emissions is required

Does your city aim to achieve climate neutrality even before 2030?

- ○ Yes
- ◉ No

Future picture - closing the gap

Which areas is your city likely to address in order to abate GHG emissions?

Stationary energy (excluding public lighting)

- ☑ Nearly Zero Energy Buildings (NZEBs) (new buildings)
- ☑ Nearly Zero Energy Buildings (NZEBs) (renovation of existing buildings)
- ☐ Building electrification
- ☑ Energy efficient electrical appliances
- ☑ Integrating RES systems into the building
- ☑ Digitalisation and smart city solutions
- ☑ Local heat/cold storage
- ☑ Behavioural changes
- ☐ Positive Energy Buildings
- ☐ Energy renovation/retrofit of existing buildings (below NZEB level)

- [ ] On-site and nearby renewable energy generation
- [x] Building Automation and Control Systems (BACS) /Building Energy Management Systems (BEMS)
- [x] Nearly Zero / Positive Energy Districts
- [ ] Citizen and renewable energy communities
- [x] Demand response

Public lighting

- [x] Energy efficiency
- [x] Integrated renewable energy
- [x] Information and Communication Technologies

Transport

- [x] Cleaner/efficient vehicles
- [x] Clean buses
- [x] Electric vehicles (incl. infrastructure)
- [ ] Investment in metros and railways
- [x] Accessibility of public transport
- [x] Modal shift to walking & cycling, incl. infrastructure
- [x] Multi-modal hubs/integration between transport modes
- [x] Micromobility
- [x] Mobility as a Service (MaaS)
- [ ] Low or Zero Emission Zones
- [x] Congestion pricing schemes
- [x] Improvement of logistics and urban freight transport
- [x] Road network optimisation aiming at emission reduction
- [x] Mixed use development and sprawl containment
- [x] Digitalisation and smart city solutions
- [ ] Eco-driving (driving behaviour and style to reduce fuel consumption and emissions)
- [x] Car sharing
- [x] Ride-sharing/car pooling initiatives
- [x] Park and ride facilities

Waste

- [x] Use of recycled and recyclable, renewable and sustainable materials
- [x] Management of biodegradable municipal waste
- [x] Municipal waste prevention
- [x] Food waste prevention
- [ ] Redirecting food surplus and food scraps
- [x] Litter prevention in public spaces and/or marine litter prevention
- [ ] Anaerobic digestion
- [ ] Industrial symbiosis between local businesses
- [ ] Sustainable buildings
- [x] Circular economy business models, aimed at encouraging the reuse, repair and/or recycling of products
- [x] Other innovative measures promoting the circular economy concept
- [x] Efficient thermal treatment/ landfill management
- [x] Efficient waste /landfill gas to energy / fuel
- [x] Waste heat recovery
- [x] Upgrade of wastewater treatment
- [x] Wastewater reuse
- [x] Stormwater management

Renewable energy generation

- [x] Wind power
- [ ] Solar thermal
- [ ] Virtual power plants
- [x] Photovoltaic
- [x] Ambient energy
- [ ] Tide, wave and other ocean energy
- [x] Hydropower
- [ ] Efficiency of existing co-generation systems
- [ ] Biomass district heating/cooling plant
- [ ] Biomass district heating/cooling network (new, expansion, refurbishment)
- [x] Energy production from waste/wastewater
- [x] Digitalisation and smart city solutions

- [x] Geothermal energy
- [ ] Biomass power plant

Other areas

- [x] Energy efficiency in industrial processes
- [x] Renewable energy in industrial processes
- [x] Energy efficiency in agriculture and forestry processes
- [x] Renewable energy in agriculture and forestry processes
- [x] Information and Communication Technologies in Agriculture, Forestry, and Other Land Use (AFOLU) / Industrial Processes and Product Use (IPPU)
- [x] Natural carbon sinks (e.g., tree planting)
- [x] Hydrogen technologies
- [ ] Urban heat island effect mitigation
- [x] Mixed-use development and sprawl containment
- [ ] Urban regeneration

What policy instruments does your city plan to use to support the necessary actions in the areas selected above?

If no areas are selected in any sector(s), please select “Not applicable".

Stationary energy (excluding public lighting)

- [x] Awareness raising/training
- [x] Energy/carbon taxes
- [x] Building standards
- [ ] Not applicable
- [x] Energy management
- [x] Grants and subsidies
- [x] Energy audits
- [x] Energy certification /labelling
- [x] Third party financing, Public Private Partnerships
- [x] Land use planning regulation
- [x] Energy suppliers obligations
- [x] Public procurement
- [ ] Other

Public lighting

- [x] Energy management
- [ ] Third party financing, Public Private Partnerships
- [ ] Other
- [x] Energy suppliers obligations
- [x] Public procurement
- [ ] Not applicable

Transport

- [x] Awareness raising/training
- [x] Taxation
- [ ] Voluntary agreements with stakeholders
- [x] Multimodal ticketing and charging
- [ ] Transport access regulations
- [x] Other
- [x] Grants and subsidies
- [ ] Public procurement
- [ ] Not applicable
- [ ] Third party financing, Public Private Partnerships
- [x] Land use planning regulation
- [x] Road pricing
- [x] Sustainable urban mobility planning regulation

If other, please specify

100 character(s) maximum

One vehicle bringing goods in and waste out. Ensure access to soft mobility modes all seasons.

Waste/wastewater

- [x] Awareness raising/training
- [ ] Building standards
- [x] Grants and subsidies
- [ ] Third party financing, Public Private Partnerships
- [x] Bans or restrictions on single use or non-recyclable materials
- [ ] Bans or restrictions on the discharge of untreated sewage
- [x] Regulations for durability, reparability and recycling in public procurement
- [ ] Codes or regulations for hazardous chemicals
- [ ] Fees / incentives for volume based waste collection
- [x] Recycling targets for household or municipal waste
- [ ] Voluntary agreements with stakeholders
- [x] Other
- [ ] Not applicable

If other, please specify

100 character(s) maximum

Environmental accounting from public waste companies. Private companies committed to recycling.

Renewable energy generation

- [x] Awareness raising/training
- [ ] Energy suppliers obligations
- [x] Grants and subsidies
- [x] Third party financing, Public Private Partnerships
- [x] Public procurement
- [x] Building standards
- [x] Land use planning regulation
- [x] Other
- [ ] Not applicable

If other, please specify

100 character(s) maximum

Load management and smartgrid - access to flexibility markets (transparent and non-discriminatory).

Other areas

- [x] Awareness raising /training
- [x] Energy management
- [x] Energy certification /labelling
- [x] Energy performance standards
- [ ] Energy/carbon taxes
- [x] Grants and subsidies
- [x] Third party financing, Public Private Partnerships
- [x] Land use planning regulation
- [ ] Voluntary agreements with stakeholders
- [ ] Not applicable
- [ ] Other

List up to 3 interventions per sector that could be scaled up by 2030. Leave blank if there are no scalable interventions in place or if you want to describe less than 3.

Stationary energy (excluding public lighting)

Intervention 1

500 character(s) maximum

Establish CO2 treatment at a local waste incineration plant being the largest point emitter in the municipality. The alternative is transport of waste from north of Norway to south of Sweden resulting in even larger emissions. The energy utilization at the plant is high and future CO2 purification will also entail purification of biogenic CO2 forecasting negative emission. A pilot for testing of technology is in pipeline, and production is scaleable from 2 to 3 lines by 2030 provided funding.

Intervention 2

500 character(s) maximum

Ensure that the location for establishing industrial processes with surplus heat will enable that waste heat becomes an energy source for the district heating network, possibly as future hydrogen production provided sufficient coordinated spatial planning. Also ensure further development of the use of heat pumps for utilization in the district heating network, e.g. the heat pumps at Strandkanten heating plant, utilizing the heat from the wastewater. Scaling by increase/decrease of input.

Intervention 3

500 character(s) maximum

Reduce the load on the electrical grid by lowering the energy usage in public and commercial buildings, while retaining required indoor climate. As the electrification of the society progresses, especially in the transport sector, the need for energy efficient buildings increases. Measures can be taken to audit, certify and manage energy usage. Specific measures include geothermal heat pumps, smart electrical load management, system automation, and building modifications.

Public lighting

Intervention 1

500 character(s) maximum

As a general measure, for energy saving more than a specific climate measure, all public lightning will be upgraded and replaced by LED lightning solutions. This started several years ago and will continue in the coming years. Choice of LED lightning solution type, with and without management and control, is situation and location dependent. Tromsø has a long winter season with lack of sunlight for several months. Some areas need 24/7 lightning, others need dimming at night time.

Intervention 2

500 character(s) maximum

Intervention 3

500 character(s) maximum

Transport

Intervention 1

500 character(s) maximum

Transition toward electrification of the municipal car fleet: Zero-emission vehicles must be used where possible, given further development to achieve sound and recycable battery packs, adapted infrastructure, and a higher degree of car reparability. Support schemes and subsidies should be put in place to bring car-prices down for the sake of preventing transport poverty. The added values embedded into the vehicle electrification concept are suitable for affecting the scalability positively.

Intervention 2

500 character(s) maximum

Deploying low carbon public procurement to accelerate carbon removal: The scope and scale of public procurement makes it one of the most effective policy mechanisms available to governments to drive emissions reductions (Grandia & Meehan,2017). Tromsø will develop green procurement competence and requirements for zero emissions in public procurement, step by step, targeting all sectors and levels, Also encourage suppliers and mission partners to employ green requirements in own supply chains.

Intervention 3

500 character(s) maximum

An infrastructure program that prioritizes safe, sound, efficient and attractive net zero solutions, which make it easy to choose alternatives like walking, running, cycling, skiing or paddling. These soft transport alternatives represent commonly practiced sports and getting to school and work by inhabitants and visitors. Adapted infrastructure must be further developed in balance with forest, ocean and mountains. The effect is reduced emission by chosing alternatives to using private cars.

Waste

Intervention 1

500 character(s) maximum

Effectively align the national public policy and support systems towards the green solutions adapted to the needs of Arctic cities and rural areas. This requires a clear common agenda and support from our research, development and educational institutions. With regard to the treatment of waste, a pinpointed long-term R&D for efficient waste reduction, increased recycling rate and increased recycling quality/effect would contribute to unleash the full potential of resources in process.

Intervention 2

500 character(s) maximum

Reward CO2 purification implemented at waste incineration plants that capture both fossil and biogenic CO2. Consistent reward schemes that specifically support all the different links in the value chain from an expressed need to a tested and implemented market solution. Reward financing, investments and acquisitions that document the circular economy effect. Also reward production based on secondary resources rather than natural.

Intervention 3

500 character(s) maximum

Set requirements for increased energy utilization and reduce the amount of waste to landfill. Initiate projects for waste producers with the aim of increasing the recycling rate of waste fractions that are not otherwise used. Establish equivalent requirements for public and private companies.

Renewable energy generation

This could include the extension of installed RES capacity

Intervention 1

500 character(s) maximum

A regional hub for green energy production (the Neptun project) is in the pipeline with production start approx 2025: A large-scale plant for production of green hydrogen and ammonia located in Tromsø. The project partners are Troms Kraft, Magnora and Prime Capital, representing knowledge, local presence and financial strength. The investment is estimated at NOK 1 billion. The market: Maritime sector; Other transport; Chemical industry. Secondary products: waste heat, oxygen, grid stabilization.

Intervention 2

500 character(s) maximum

Intervention 3

500 character(s) maximum

Other areas

Intervention 1

500 character(s) maximum

Intervention 2

500 character(s) maximum

Intervention 3

500 character(s) maximum

Partnerships

Collaboration with other levels of government, citizens and different stakeholders will be critical for accelerating the transition to 2030 climate neutrality. The questions in this section inquire about your city's existing partnerships and how they are contributing to advance your city's climate policy development and implementation.

We would also like to learn if and how your city is engaging citizens in the design and implementation of climate policies. You can further describe how your city collaborates and shares experiences across city and national boundaries.

This information will be useful to help us and the Mission Platform identify best practices and what future support needs to be put together for cities in the Mission.

... with stakeholders

Who are the main stakeholders currently involved in formulating and implementing climate change mitigation/Greenhouse Gas (GHG) emissions reduction policies in your city?

- [x] National government
- [x] Regional government
- [x] Neighbouring local/regional government
- [x] Academia / Research & Innovation (R&I) institutions
- [x] Private sector
- [ ] Financial institutions
- [ ] Trade unions
- [x] NGOs and associations
- [x] Utilities
- [ ] Citizen and renewable energy communities
- [x] Citizens
- [ ] Vulnerable groups
- [x] Youth & education sector
- [ ] Other

... with other levels of government

Which types of support does your city currently receive from other levels of government (regional /national) to formulate and implement its climate change mitigation policies?

- [x] Policy and regulation formulation
- [ ] Technical and strategic assistance

- [ ] Capacity building
- [x] Financial support and opportunities for projects' development and implementation;
- [ ] Financial advisory services and resource mobilisation
- [ ] Assistance in dissemination, outreach, awareness raising initiatives and effective communication about climate impacts;
- [x] Access to tools and skills
- [ ] Regular and systemic reporting
- [ ] Coordination

Which types of support from other levels of government (regional/national) does your city consider most important to achieve the Mission target (select up to 3)?

at most 3 choice(s)

This question inquires about the support needed, not the level of support expected. Please flag the 3 priority aspects which would help most in the transition to climate neutrality.

- [x] Policy and regulation formulation
- [ ] Technical and strategic assistance
- [ ] Capacity building
- [x] Financial support and opportunities for projects' development and implementation
- [ ] Financial advisory services and resource mobilization
- [x] Assistance in dissemination, outreach, awareness raising initiatives and effective communication about climate impacts
- [ ] Access to tools and skills
- [ ] Regular and systemic reporting
- [ ] Coordination

Please briefly describe the most relevant regional and national activities and programmes that are currently helping your city accelerate its transition to achieve climate neutrality by 2030

1500 character(s) maximum

First and foremost, the urban growth agreement «Think Tromsø»: a collaborative project between the municipality, county municipality, Norwegian Public Roads Administration, and the inhabitants of Tromsø. The goal is zero growth in passenger car traffic. Future growth in passenger transport will be distributed between walking, cycling and public transport. Second,Tromsø Municipality also collaborates with external actors on electrification of local businesses and transport (shipping, public transport, machinery, construction, and civil engineering). These objectives are rooted in central plans such as the Municipal Master Territorial Development Plan and the “Climate, Environment and Energy Plan”. Third, first steps on the road to green aviation are being taken in our region, by testing and developing electric aircraft under Arctic conditions. This will have a meaningful impact on emission levels, and will also be crucial to ensure mobility in northern Norway, which is characterized by long distances, weather-exposed infrastructure, and demanding conditions for existing public transport services. This investment is in line with the government's strategies for business and industry in the Arctic.

... with the private sector

Please describe any partnerships that your city has with the private sector and how they are conducive to reaching the climate neutrality target by 2030

800 character(s) maximum

Tromsø municipality collaborates with the private sector in several areas to achieve climate goals. Central is electrification and green development of the construction industry, focusing on emission-free buildings and construction sites (Urbanor30, Fjuel AS). Central collaborators are e.g. the local business associaton/ Chambre of Commerce and the regional office of the Confederation of Norwegian Enterprise in the Arctic (NHO). The municipality also collaborates with local tourism companies regarding solutions for sustainable tourism.

In which ways (if applicable) does your city collaborate with the private sector to advance its climate policy agenda?

- [ ] Private sector provides financial and insurance services in the transition to climate neutrality, including project preparation financing
- [x] Public Private Partnerships for climate neutral infrastructure and services
- [ ] Crowdfunding from companies and SMEs in climate neutral infrastructure and services
- [x] Climate neutrality in business operation and improving value chains
- [ ] Promoting start-ups and green jobs creation
- [ ] Establishment of net-zero goals
- [x] Research & Innovation, new technologies

... with citizens

What kinds of citizen engagement activities does your city have in place?

Deliberative practices include citizens' assemblies, polls and surveys.
Informative practices and awareness-raising events include workshops, information points, open-door days, exhibitions, fairs, guided visits, energy weeks, car free days, local clean-ups, etc.
Educational activities and programmes include seminars, school competitions, outreach activities

- [ ] Deliberative practices to judge options or co-create plans and/or actions
- [x] Informative practices and awareness-raising events
- [ ] Participatory budgeting to prioritise actions
- [x] Participatory urban planning
- [x] Ad-hoc co-creation engagement practices
- [x] Educational activities and programmes
- [ ] Other
- [ ] None

Does your city have existing programmes/projects that engage citizens in climate change mitigation /GHG emissions reduction policies?

- (●) Yes
- ( ) No

If yes, please briefly describe the most important programmes/projects

1500 character(s) maximum

Please describe ongoing programmes/projects and how they engage citizens. If applicable, please also briefly describe the main inputs from citizens, the main outcomes and how they were taken up (or are planned to be taken up) in policy, and the inclusion of diverse groups (incl. vulnerable groups). Finally, please comment on whether these programmes/projects could be scaled up at other levels (e.g., lessons learnt that could be applicable elsewhere or replicated at other governance levels (national, regional, etc.)).

Norwegian legislation gives citizens the right to participate in local policy decisions. The local government must ensure involvement from citizens and relevant stakeholders in planning processes and revisions. Citizens participation is usually ensured through consultations, public meetings with relevant interest groups (e.g., senior councils, youth councils, municipal councils for people with disabilities) as wll as the public at large. The mission gives the opportunity to mobilise citizens and partners through a communication campaign launching "Climate neutral Tromsø" and introduce new and innovative approaches to citizens' involvement. Public consultatio is mandatory for municipality policy- and regulatory issues, however, currently practiced in a non-standard manner. Despite the formal and many opportunities to influence municipal policy, there is a limited engagement among the public.

What actions does your city have in place targeting behavioural change of citizens to adopt more sustainable lifestyles or a more active participation in achieving climate change mitigation/GHG emissions reduction goals?

Examples of behavioural changes:
- Optimising thermostat settings of heating (e.g. leaving room temperatures at the same level, reducing temperature at night/if absent)
- Less private car use, switching to public transport, active (cycling or walking) or sharing mobility
- Reducing overconsumption and favouring ethical consumption of goods
- Reducing and sorting household waste

Please note that Scope 3 emissions with the exception of waste/wastewater lie outside the Mission's definition of climate neutrality by 2030. For further information please consult the InfoKit, Part II, Section 2.4, page 21.

- [x] Awareness-raising campaigns
- [x] Incentives/disincentives
- [x] Bans and mandates
- [ ] One stop shops
- [ ] Workshops
- [x] Infopoints
- [ ] Nudges
- [ ] Other
- [ ] None

... with other cities

Does your city exchange or collaborate with other cities on aspects related to the climate neutrality transition?

- ( ) Yes, we are very active, share our experience and engage with other cities regularly, nationally and internationally
- ( ) Yes, we are member of relevant networks and programmes and participate in relevant events to learn from others
- ( ) Yes, we exchange and collaborate with cities in our region
- (•) We are currently looking for opportunities to exchange and learn from other cities like us
- ( ) No, we are not yet collaborating or exchanging on this topic

Please rate the intensity of your current level of cooperation with neighbouring cities and surrounding Local Administrative Units (LAUs) in areas linked to climate change mitigation/GHG emissions reduction.

	0 Not applicable	1 No cooperation	2 Weak	3 Fair	4 Significant	5 Strong /formalised
Level	( )	( )	(•)	( )	( )	( )

... with academia or Research & Innovation institutions

Please describe existing partnerships with research centres / academia and how they are conducive to effective climate actions and possibly contribute to climate neutrality

1500 character(s) maximum

The municipality is increasingly involved in establishing collaboration schemes with the many research and innovations institutions established in Tromsø. The objective is to provide increased research-based knowledge as a base for political decisions and the management of city development. Collaboration schemes with R&I institutions are also important in view of student assignments relevant to the municipality's areas of responsibilities as well as for future recruitment of qualified human resources for the employment needs of the city. The municipality offers internships to students.

The UiT, The Arctic University of Norway and the municipality have a formalized 4-year Cooperation Agreement. The rector of UiT and the mayor meet annually to adopt an annual work plan. The focus is increasingly on what knowledge is needed on climate issues for the city and the Arctic region as well as how the research agenda and the curricula of the UiT should reflect the climate challenge.

The municipality has also been involved in annual climate dialogues with researchers at the High North Research Centre for Climate and the Environment (FRAM) to formulate the needs of the municipality in relation to the research conducted.

Generally, the municipality wishes to create and facilitate more arenas for dialogue and cooperation between academia, innovation facilities, and the public sector. Participation in the mission will stimulate this type of activity.

Capital needs and investment strategies

The questions in this section explore your city's current capability to estimate the capital requirements for investment and the funding and financing needed for the transition towards climate neutrality. Cities are not expected to have an investment plan prepared at this stage. An investment plan that specifically addresses actions to reach climate neutrality by 2030 will be an integral part of the Climate City Contract process, which will be developed with assistance from the Mission Platform.

Using the questions in this section, you are encouraged to reflect on your city's capital/finance capabilities, experience and investment readiness for climate neutral actions.

As is the case for all other parts of the questionnaire except the Eligibility section, answers will not be used as a basis for excluding cities from consideration; rather, they are intended to help us get a better understanding of city-specific gaps and needs, particularly relating to this important dimension.

Estimated volume

Has your city estimated the capital requirements for investment and funding / financing climate neutral actions?

Please note that the capital requirements for your city to reach climate neutrality by 2030 will only need to be clarified in the next phase. Targeted assistance will be provided to the Mission Cities including for the development of an investment strategy.

- (●) No, the capital requirements will be assessed in the next phase
- ( ) Yes, we can provide a rough estimate
- ( ) Yes, we have a detailed assessment

Financing & Investment readiness

Does your city have an investment strategy for the current climate action plan(s)?

This question refers to current climate action. An investment strategy for climate action might be achieved through multiple sectoral plans, including mobility plans, low/zero carbon buildings, energy efficiency in public works, among others, which can be aligned or scaled up to reach climate neutrality. Please choose the most advanced answer option that best describes your current situation.

- ( ) We are just getting started with estimating investment needs
- (●) We have experience in financing a few specific projects
- ( ) We have several investment strategies at the sectoral level
- ( ) We have a fully integrated investment strategy / programme to deliver climate neutrality

Has your city launched investment initiatives and projects in the past that involve citizens, private capital investors and technology/service providers?

This question explores your city's experience with complex projects involving multiple stakeholders, irrespective of the sector concerned. A city might have initiated projects and implemented them with the support of the national or regional governments, involving stakeholder consultations and moving forward independently with investments. More advanced projects can involve multiple operators and financiers, as well as complex stakeholder management. Please choose the most advanced answer option that best describes your current situation and experience to date.

- (●) No
- ( ) We have done it with assistance from the regional/national government
- ( ) We have developed relatively small projects involving a few stakeholders
- ( ) We have developed larger projects, involving complex financial structures and multiple stakeholders

Has your city assessed the potential of the capital markets to provide climate funding and investment, including local, regional, national, and international sources and has your city made steps towards establishing an investor community?

This question concerns your experience in involving private sector operators, investors or financiers. An investor community is the group of people, organisations, financial institutions (banks, insurers, pension funds, etc), sponsors and other stakeholders that the city can tap into regarding their interest in the provision of a specific service or infrastructure, including financing and operation. It is not a fixed entity, but a concept that encompasses the potential partners that provide financing for project implementation. Please choose the answer option that best describes your current situation.

- ( ) No

- We have some experience in working with private capital investors in small projects
- We have some experience in using financial products in combination with national/EU grants and subsidies
- We understand well the uses of multiple financial products and different investor audiences and have accumulated experience in multiple projects
- We have an investor relations office

For any answer except "no", please briefly describe how your city has engaged with these actors, whether individually or as a whole

1500 character(s) maximum

In your answer please reflect on your city's capital/finance capabilities and approach and whether you have access to and make use of finance advisory services/expertise specifically for climate change mitigation/greenhouse gas emissions reduction measures.

In 2016 Tromsø municipality signed an energy performance contract (EPC) with Siemens with the purpose of reducing energy consumption by 5,200,000 kWh annually. By inspecting 22 buildings we found 300 improvements relevant to the goal. In total the project would require an investment of 100 million NOK. Upon completion of the project the energy consumption will be reduced by approximately 30 % compared to the startingpoint. Regarding capital needs and investment, the total amount was estimated to 100 million NOK. Sources of financing were bonds and grants from Enova SF - a state-owned enterprise for consulting and grants targeting energymeasures and emission reduction.

In 2019-2021 Tromsø invested in100 charging stations for the municipality`s own electric car fleet. This is the first step of a total of 250 charging stations within the next two years. The stations are spread over 21 locations and constitute one of the measures in the municipality's strategy to increase the proportion of fossil-free cars to 70 % by 2025. The environmental benefit is estimated to 2 333 tons of CO2 equivalents for 150 cars over a period of nine years (2022-2030). The project required an investment of 2,5 million NOK, of which 50 % was self-financing and 50 % received as a grant from the Norwegian Environment Agency (NEA). The municipality obtained their funding in the bond market.

The city engaged with Enova and NEA through knowledge based advice, project development and funding.

Is your city actively working with established investment/finance partners to build an investor-ready pipeline of projects contributing to climate neutrality?

A 'finance-ready' pipeline of projects refers to a selection of measures or actions with detailed analysis for technical and financial implementation, considering sponsors and stakeholders, with, for example refined cost estimates, payback periods, detailed benefits etc.

- No
- We are just starting with a climate action plan
- We have a pipeline of projects that are ready for investment
- We have a pipeline of projects that are ready for investment and are actively working with investment/finance partners in building new pipelines

Has your city used innovative financing instruments?

Examples include crowdfunding schemes, which are financial vehicles where individuals have an option to own or use a common resource, with a benefit; or green bonds, which are debt instruments that are traded in capital markets. Social Impact Bonds (or SIBs) are a results-based form of social impact investment, whereby private investors provide capital to launch or expand innovative social services that deliver a public good. See InfoKit, Part II, Chapter 9 for further information.

- [ ] No
- [x] We are analysing options for implementing innovative financing instruments
- [ ] Crowdfunding schemes
- [x] Green bonds
- [x] Energy performance contracting
- [ ] Social impact bonds
- [ ] Other innovative financing instruments

Governance

The questions in this section inquire about your city's current administrative structure and how it addresses the local climate action agenda. This section provides the opportunity to describe governance structures (planned or in place) and the human resources available to pursue your city's ambition as part of the Mission.

Another set of questions in this section refers to the systems your city may have put in place to collect relevant data and ensure effective monitoring and reporting on climate action.

This information will be useful to help us and the Mission Platform identify best practices and what future support needs to be put together for cities in the Mission.

Overall capacity and organisation

Please indicate the fields in which your city has the legal powers to act/make policy decisions

- [x] Buildings & Construction
- [x] Economic development
- [x] Energy demand in buildings
- [ ] Energy supply
- [x] Transport
- [x] Waste/wastewater management
- [ ] Industrial emissions
- [x] Agricultural emissions
- [x] Urban land use
- [x] Green spaces / Green infrastructure
- [x] Water Resource Management
- [x] Air quality
- [x] Environment
- [x] Disaster risk
- [x] Finance & Investment
- [x] Public health
- [ ] Other

Please describe your current climate governance, including horizontal oversight of climate mitigation policies

800 character(s) maximum

Please describe the entity/entities with primary responsibilities for climate mitigation policies and cross-sectoral coordination of the climate agenda and the working modality. This could include a dedicated department/unit, a committee, a dedicated person, external body/person or an arms-length organisation working in close collaboration with the municipality.

The superstructure for climate governance is established by the overall "Municipal Master Plan for Community Development" and the "Climate, Environment and Energy plan", both expressing ambitious goals. The climate actions are handled in various departments and sections in accordance with the many different topics and professions relevant to the climate topic. The horizontal field of application includes all sectors, such as area planning, agriculture, healthcare, Arctic urban development, public procurement et cetera. However, the horizontal spread does not imply a comprehensive and effective solution to the needs. The power of our intentions is inhibited by fragmentation and typical silos that require modifications to become the enabler that we aim for.

Please specify for how long the selected governance structure or allocation of responsibilities has been in place

- ○ Less than 1 year
- ◉ Less than 5 years
- ○ For longer than 5 years

In the event that your city is selected for the Mission and develops a Climate City Contract, is your city considering changing/adapting the current governance structure?

The Cities Mission will have as its central feature the “Climate City Contracts”. Each participating city will develop and implement such a contract. While not legally binding, these contracts will constitute a clear and highly visible political commitment not just to the Commission and the national and regional authorities, but also to their citizens. They will set out plans for the city to achieve climate neutrality by 2030 and they will include an investment plan. Climate City Contracts will be co-created with local stakeholders and citizens, with the help of a Mission Platform. The Mission Platform will provide the necessary technical, regulatory and financial assistance to cities.

- ◉ Yes
- ○ No

If yes, please describe the desired change, and indicate why this would be necessary

600 character(s) maximum

The overall focus must be on climate action and implementation ability. Changes must target climate neutrality as a whole enabled by a climate oriented organisational structure. Joint ownership of the goal and strengthened innovative powers for new solutions, call for joint processes with citizens and organisations to a large extent. Early preparations may address ways of citizen engagement, openness, innovative cross sectoral processes and learning as part of work. Our climate governance structure must encompass this as a way of working and eventually becoming a climate enabling work culture.

Staff capacity and skills

Do you think that there is sufficient staff available to design and implement a Climate City Contract with the help of the Mission Platform?

- ○ Yes
- ◉ We are undertaking steps to allocate additional staff to this work
- ○ No
- ○ Not known

Is your city staff currently sufficiently trained and skilled to design and implement climate neutrality policies?

"Critical" sectors are those with the highest mitigation potential (i.e., account for the highest share of emissions)

- ○ Yes, at cross-sectoral level and in all sectors relevant to climate neutrality
- ○ Yes, in all sectors relevant to climate neutrality
- ○ Yes, in the sectors relevant to climate neutrality that are critical to the city
- ◉ Yes, in some sectors relevant to climate neutrality
- ○ No
- ○ Not known

In which specific aspects would your administration/staff benefit the most in terms of capacity-building?

at most 5 choice(s)

- ☑ Skills: Design of mitigation actions
- ☐ Skills: Project development through pre-feasibility to finance-ready
- ☐ Skills: Implementation and project management
- ☐ Skills: Monitoring, Reporting and Verification
- ☑ Skills: Investment planning
- ☐ Skills: Anticipation/foresight
- ☐ Skills: Communication
- ☐ Skills: Computing and data analysis
- ☐ Knowledge: General knowledge on climate neutrality
- ☐ Knowledge: Specific knowledge on climate neutrality
- ☑ Knowledge: Cross-sectoral knowledge on climate neutrality
- ☐ Knowledge: Knowledge on climate finance
- ☑ Knowledge: Knowledge on digitalisation and smart city solutions
- ☐ Innovation: Capacity for applying knowledge in practice
- ☑ Innovation: Capacity for procuring R&I solutions/innovation
- ☐ Innovation: Capacity for implementing R&I solutions
- ☐ Innovation: Capacity to adapt to new situations
- ☐ Innovation: Capacity for generating new ideas
- ☐ Other

Could your city administration offer support or training to other cities with respect to the design and implementation of climate neutrality policies?

- ○ Yes
- ◉ No

Data Collection/Reporting

Is your city regularly collecting/reporting data on the areas and/or sectors indicated in the table below?

	Yes, covering the entire city and nothing else	Yes, covering only parts of the city	Yes, covering only municipal buildings and facilities /operations	Yes, covering the whole city and adjoining areas	No
Energy (generation and consumption)	○	○	◉	○	○
Transport (incl. vehicle km travelled, mode share, infrastructure)	○	○	◉	○	○
Waste/wastewater (generation, collection and treatment)	◉	○	○	○	○

Energy

If you selected "Energy (generation and consumption)", please specify the typical frequency of the data collection/reporting

At least annually

If you selected "Energy (generation and consumption)", please specify the year of the latest data collection/report

Only values between 2000 and 2021 are allowed

2020

If you selected "Energy (generation and consumption)", please specify which sectors/sources are covered

- ☐ Residential buildings
- ☐ Commercial buildings and facilities
- ☑ Institutional buildings and facilities
- ☐ Industrial buildings and facilities
- ☐ Street lighting
- ☐ Renewable energy generation
- ☐ Non-renewable energy generation
- ☐ Co-generation
- ☑ District heating/cooling
- ☑ Energy production from waste /wastewater
- ☐ Local heat/cold storage
- ☐ Other

Transport

If you selected "Transport (incl. vehicle km travelled, mode share, infrastructure)", please specify the typical frequency of the data collection/reporting

At least annually

If you selected "Transport (incl. vehicle km travelled, mode share, infrastructure)", please specify the year of the latest data collection/report

Only values between 2000 and 2021 are allowed

2020

If you selected "Transport (incl. vehicle km travelled, mode share, infrastructure)", please specify which sectors/sources are included

Real-time transport data can include for example the number of passengers hoping on/off on particular stop, the intensity of public transport usage etc.

- [x] Passenger cars (vehicle km traveled or similar)
- [ ] Cycling (mode share)
- [ ] Real-time transport data
- [ ] Public transport (mode share)
- [ ] Walking (mode share)
- [ ] New transport technologies
- [ ] Urban freight and logistics (vehicle km traveled or similar)
- [ ] Micromobility (mode share)
- [ ] Other

Waste/wastewater (generation, collection and treatment)

If you selected "Waste/wastewater (generation, collection and treatment)", please specify the typical frequency of the data collection/reporting

At least annually

If you selected "Waste/wastewater (generation, collection and treatment)", please specify the year of the latest data collection/report

Only values between 2000 and 2021 are allowed

2020

If you selected "Waste/wastewater (generation, collection and treatment)", please specify which sectors/sources are included

- [x] Private homes/households
- [x] Public services (i.e. schools, hospitals, municipal buildings etc.)
- [x] Businesses/industry
- [ ] Other

Does your city work in partnership with other stakeholders to collect data on issues that concern or are linked to climate change mitigation?

- (•) Yes
- ( ) No

Which stakeholders does your city work with to collect data on issues that concern or are linked to climate change?

- [ ] National government
- [ ] Academia / R&I institutions
- [ ] NGOs and associations
- [x] Other
- [x] Regional government
- [x] Private sector
- [x] Utilities
- [ ] Local government
- [ ] Trade unions
- [ ] Citizens

If other, please specify

100 character(s) maximum

A network of public, semi-public and private actors that collect climate data - "Klimapartnere"

Monitoring & evaluation systems for existing plans

Please indicate how your city's climate change policies are monitored, evaluated, and updated

	Annually	At least every 3 years	At least every 5 years	Irregularly or less frequently than 5 years	No process in place
Monitoring	○	◉	○	○	○
Evaluation	○	○	○	◉	○
Update	○	○	◉	○	○

Disclosure

Is your city regularly disclosing on climate action and the progress towards achieving its climate targets?

- ◉ Yes
- ○ No

If yes, please specify the frequency of disclosure

- ◉ At least annually
- ○ At least every 2 years
- ○ At least every 4 years
- ○ Less frequently than every 4 years

If yes, please specify the year of the latest report

Only values between 2000 and 2021 are allowed

2020

If yes, please specify the way of disclosing

- ☐ Through MyCovenant
- ☐ Through CDP Cities (CDP/ICLEI Unified Reporting System)
- ☐ Through national platforms/systems (please specify)
- ☑ Own publication of reports (please specify)
- ☐ Other

If you selected national, own or other, please specify

100 character(s) maximum

Tromsø Municipal Annual Report and Norwegian Environment Agency reporting

Barriers, risks and assistance needs

The questions in this final section ask you to reflect on the critical barriers, risks and challenges your city faces to achieve climate neutrality by 2030. All cities participating in the Cities Mission will require assistance and aligned efforts at all levels to overcome barriers and gaps while pursuing their climate neutrality ambition. Any information provided in this section does not constitute a qualifying – or excluding – criterion but will be highly informative. Your answers will help clarify the expectations for your city in the next phases of implementation towards climate neutrality and also inform the Mission as a whole, so that tailor-made services provided through the Mission Platform are as responsive as feasible.

Across sectors

What are the main barriers/gaps/assistance needs that your city envisages in pursuing climate neutrality by 2030?

at most 6 choice(s)

Useful definitions:

- Regulatory red tape: the complexity of burdensome administrative rules and procedures that have negative effects on the organisation's performance. In the context of the Mission, it refers to any bureaucratic obstacles to climate neutral action.
- Geomorphic/topographic limitations/challenges: these include anything relevant to climate neutrality related to urban geomorphic type (e.g., coastal, inland, valley, mountainous city), slope, soil type and pollution, irrigation and drainage, groundwater salinization, road accessibility, geological hazards (e.g., earthquakes, tsunamis, floods, forest fires, droughts) and barriers associated with the interaction of natural and man-made hazards.
- Growth scheme limitations/challenges: these include any obstacle to taking actions to mitigate Greenhouse Gas emissions and move towards climate neutrality related to urban sprawl, centeredness, connectivity, density and land use mix.
- Climatic limitations/challenges: these include any obstacle to climate neutrality related to proclivity to extreme heat, cold, wind, windlessness, humidity, rainfall, solar radiation.

- [ ] Slow/disaggregated authorisation process
- [x] Slow/disaggregated financial process
- [ ] Insufficient administrative and/or operational capacity
- [x] Regulatory red tape
- [ ] Lack of digitalisation
- [ ] Lack of circularity
- [ ] Lack of consolidated monitoring, reporting and verification procedures
- [ ] Lack of industrial support in providing the necessary services
- [ ] Lack of market competition
- [x] Lack of citizen participation and proactiveness
- [ ] Lack of effective and sustainable policy at local level
- [ ] Lack of enabling policy at Member State level
- [ ] Lack of enabling policy at EU level
- [ ] Lack of available technologies to eliminate Greenhouse Gas emissions in certain sectors or applications
- [x] Fragmentation of responsibilities
- [ ] Difficulties in building collaborations between public and private sectors
- [ ] Uncertainty about regulation and taxation
- [ ] Prohibitive investment costs
- [x] Geomorphic/topographic limitations/challenges
- [ ] Growth schemes limitations/challenges
- [ ] Climatic limitations/challenges
- [x] Lack of funding/financing schemes
- [ ] Lack of technical or commercial skills and information
- [ ] Other

Please identify and elaborate on the cross-cutting barrier(s)/gap(s)/assistance need(s) that are most critical in your city's journey towards climate neutrality by 2030 (if any)

1000 character(s) maximum

In identifying the most critical barrier/gap/assistance need, please consider local specificities that may require devising bespoke countermeasures, not readily available.

Currently, the responsibility for climate is highly fragmented and easily becomes subordinate to the traditional operational tasks. The principle of being able to take action across the board is widely acknowledged, and so is the value of innovation through co-creation across professions and roles. Lack of citizen involvement and proactiveness from the municipality are clearly acknowledged by the organisation itself, which experiences being locked in the comprehensive bureaucracy that is associated with municipal service production. To us, these conditions represent barriers/needs in the form of competence, examples and effective methods for a city municipality with 7000 employees to become an enabling force for the green transition in our region. Further, we consider financing associated with this operation to be a challenge. Together with our partners the question of financing models and opportunities has been addressed as highly important.

Sector-specific

What barriers/gaps/assistance needs specific to the energy sector does your city expect to encounter when pursuing climate neutrality by 2030?

at most 4 choice(s)

Short explanations and examples.

- Subsidies for competing fuels. Example: Large subsidies for fossil fuels can significantly lower final energy prices, putting renewable energy at a competitive disadvantage if it does not enjoy equally large subsidies. Subsidies include direct budgetary transfers, tax incentives, R&D spending, liability insurance, leases, land rights-of-way, waste disposal, and guarantees to mitigate project financing or fuel price risks.
- Difficulty of fuel price risk assessment: this includes any barriers associated with fluctuations in future fuels' prices which may bend decisions about new power generation capacity.
- Unfavourable power pricing rules. Example: Renewable energy sources feeding into an electric power grid may not receive full credit for the value of their power, due to two driving factors: 1. the “locational” value of the power is not captured by the producer, 2. their “intermittent” nature cannot be entirely controlled.
- Transaction costs. sustainable energy projects (e.g. renewables) that are typically smaller than conventional energy projects may be discouraged by higher transaction costs (e.g., resource assessment, siting, permitting, planning, developing project proposals, assembling financing packages, negotiating power-purchase contracts with utilities, utility interconnection requirements).
- Tendency to overlook environmental externalities: this refers to the exclusion of monetisable environmental costs in the bottom line used to make decisions. Environmental externalities include impacts on human health (i.e., loss of work days, health care costs), infrastructure decay (i.e., from acid rain), declines in forests and fisheries, and other costs associated with climate change.
- Excessive requirements for liability insurance: liability insurance covers any legal costs and payouts claimed for injuries and damage to other people or property, which may disproportionally affect small power generators (e.g. home PV systems feeding into the utility grid).
- Perceived technology performance uncertainty and risk: this refers to the lack of visibility and familiarity with sustainable energy technologies that can lead to perceptions of greater technical risk than for conventional energy sources. These perceptions may increase required rates of return, result in less capital availability, or place more stringent requirements on technology selection and resource assessment.

- [ ] Subsidies for competing fuels
- [x] Tendency to overlook environmental externalities

- [ ] High initial capital costs
- [ ] Difficulty of fuel price risk assessment
- [ ] Unfavourable power pricing rules
- [x] Lack of effective and sustainable energy policy at local level
- [ ] Lack of enabling energy policy at Member State level
- [ ] Lack of enabling energy policy at EU level
- [ ] Technical regulations
- [x] Transaction costs
- [ ] Lack of legal framework for independent power producers
- [ ] Restrictions on siting and construction
- [ ] Transmission access
- [ ] Excessive requirements for liability insurance
- [ ] Lack of access to credit
- [x] Perceived technology performance uncertainty and risk
- [ ] Site specific constraints
- [ ] Other

What barriers/gaps/assistance needs specific to the transport sector does your city expect to encounter when pursuing climate neutrality by 2030?

at most 4 choice(s)

Short explanations and examples

- Subsidies for competing fuels: please see previous question.
- Lack of cross-modal ticketing and payment systems (to encourage modal shift). The purchase of tickets in one go would enable passengers to travel using different transport modes provided by numerous operators (https://fsr.eui.eu/towards-eu-wide-multimodal-ticketing-and-payment-systems/)
- Inefficient or non-existent time-variable road pricing. This includes variable tolls, with higher prices under congested conditions and lower prices at less congested times and locations, to reduce peak-period traffic volumes to optimal levels (https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/583781/EPRS_BRI(2016)583781_EN.pdf). This also includes systems of varying charges for heavy-duty vehicles based on CO2 emissions (https://www.consilium.europa.eu/en/press/press-releases/2020/12/18/road-charging-reform-council-agrees-its-stance/)

- [x] Subsidies for competing fuels
- [ ] High initial capital costs
- [ ] Lack of cross-modal ticketing and payment systems (to encourage modal shift)
- [x] Insufficient flexibility in changing urban forms and functions (to reduce trip lengths)
- [ ] Insufficient ICT access in remote areas (to reduce the need to travel)
- [ ] Inefficient or non-existent time-variable road pricing
- [ ] Insufficient technological availability
- [x] Lack of effective and sustainable transport policy at local level
- [ ] National tax regimes that incentivise car ownership /use
- [ ] Lack of enabling transport policy at Member State level
- [ ] Lack of enabling transport policy at EU level
- [x] Spatial dispersion or uneven accessibility
- [ ] People's time and economic constraints in the use of public transport
- [ ] Infrastructural and planning barriers to active travel (lack of side walks, cycling lanes, etc.)
- [ ] Psychosocial barriers to active travel (risk of collision and injury and/or exposure to crime and verbal offense)
- [ ] Psychosocial barriers to public transport use (risk of transmission of infections, exposure to crime and verbal offense)
- [ ] Psychosocial barriers to automated transport systems (such as driverless shuttles)
- [ ] Site specific constraints
- [ ] Other

What barriers/gaps/assistance needs specific to the waste/wastewater management sector does your city expect to encounter when pursuing climate neutrality by 2030?

at most 4 choice(s)

Definition

Downcycling = recycling waste into products of inferior quality and reduced functionality

See https://www.europarl.europa.eu/RegData/etudes/BRIE/2015/559493/EPRS_BRI(2015)559493_EN.pdf

- [x] Insufficient waste separation and quality of separated waste
- [ ] Inefficient recycling processes
- [ ] Insufficient data collection
- [ ] Inefficient energy recovery of waste
- [ ] Ineffective waste prevention
- [x] Lack of effective and sustainable waste management policy at local level
- [ ] Lack of enabling waste policy at Member State level
- [ ] Lack of enabling waste policy at EU level
- [ ] Difficult balancing between promoting recycling and protecting consumers against harmful chemical substances in recycled materials
- [x] Slow behavioural transformation, including cultural barriers
- [ ] Limited community engagement and support
- [ ] Spread of illegal practices in shipping, dumping or burning waste
- [x] Lack of infrastructure for circular economy measures
- [ ] Weaker norms outside the EU which incentivise waste export
- [ ] Downcycling
- [ ] Other

Self-assessment

Please rate how much your city relates to the following statements on a scale from 1 to 5, where 1 is "cannot relate" and 5 is "very much relates".

	1	2	3	4	5
The city can rely on a growing, young and above-average educated and skilled population	○	○	○	○	◉
The city can rely on favourable economic conditions such as high salaries/tax revenues	○	○	◉	○	○
The city can rely on a supportive local research environment	○	○	○	◉	○
The city can rely on a fast authorisation process	○	◉	○	○	○
The city can rely on a fast funding/financing process	○	◉	○	○	○
The city can rely on a consolidated communication platform with proven success in disseminating climate awareness	○	○	◉	○	○
The city can rely on its own funding schemes and moderately resorts to external funding for its climate policies	○	◉	○	○	○
The city can rely on favourable geo-climatic conditions (e.g., proximity to water bodies, moderate occurrence of climate extremes)	○	○	○	◉	○
The city cannot rely on any of the above favourable conditions, but major obstacles to climate neutrality are not expected	○	○	◉	○	○

The city cannot rely on any of the above favourable conditions, but this is what makes its pathway to climate neutrality a textbook example for many other similar cities to follow	○	○	◉	○	○
The city cannot rely on any of the above favourable conditions, but recent R&I solutions offer the potential to enable at least one of them.	○	○	○	◉	○
The city cannot rely on any of the above favourable conditions, but this is the 'right moment' ('policy window') to place and prioritise the topic of urban climate neutrality on the agenda	○	○	○	○	◉
The city cannot rely on any of the above favourable conditions, but it has a history of coping with it by pioneering climate policies and by looking for alternative creative approaches (e.g., collaborations /networking access to crucial knowledge, participation in exploratory studies)	○	○	◉	○	○
The city cannot rely on any of the above favourable conditions, but it has already secured enough internal and external funding/financing for climate related projects to become a climate neutrality pioneer	○	○	◉	○	○

Please elaborate on any of the statements in the previous table whose declared rating is either "1" or "5"

1500 character(s) maximum

For instance, if the answer to the statement "The city can rely on a growing, young and above-average educated and skilled population" is "5", we invite you to provide additional explanations on the specific situation of your city.

Demographic and socio-economic status in Tromsø municipality is beneficial for a positive and rapid shift to a more environmentally friendly lifestyle and work culture due to its hight rating in terms of educational and competence levels. In addition with a relatively young population (above the national average) and many students. This is a potential advantage in terms of climate positive and attitudes, and a pre-requisite in developing solutions to the climate crisis.
With an increasing awareness concerning the need to take action to address the climate challenge, the cities mission represent a significant opportunity to start this important long-term endavour. Seen from the city of Tromsø, we experience a higher political readiness amongst politicians and the the public.

Risk assessment

For any of the risk categories listed in the table below, please identify and comment on high-impact and high-likelihood risks that could impact the achievement of your city's climate neutrality target by 2030

Every plan or project has risks which can harm its execution. The purpose of a risk assessment is to identify and analyse these potential risks. Properly made risk assessment can reduce the likelihood of negative impacts to the plan/project and/or the magnitude of the impacts, if effective mitigating actions are planned and implemented.
Risk assessment has three steps:
- Identification of the risks and their impacts

- Evaluation of risk level
- Planning of necessary mitigating actions

Identifying potential risks, i.e. a list of potential things that could stop the city from achieving its climate neutrality target, is the first step in the risk assessment process. For each risk category, the help text provides examples of potential sources of risk. Those lists are not conclusive. Your city is invited to reflect on the risks impacting/associated with an accelerated run towards climate neutrality, by focusing on those having both high impact and high likelihood. It is recommended to include city-specific risks stemming from its local characteristics.

Definitions

- Risk: risk is defined as the effects of uncertainty on objectives.
- Risk level: combination of the likelihood of occurrence and the expected impact to plan/project execution.
- Risk source: fundamental (internal and/or external) driver that causes risks, i.e. anything which alone or in combination has the intrinsic potential to give rise to risk. Risk sources identify where risks can originate.

Category 1: Leadership, strategic planning and political risk sources

700 character(s) maximum

Examples of risk sources:

- National government commitment
- Government involvement and directions
- Ministerial processes
- Parliamentary processes and requirements
- Local government commitment
- Political will
- Change/ turnover in government
- Consensus
- Political environment
- Leadership and management processes
- Strategic, divisional & unit planning & reporting
- Corporate practices

The lack of unified leadership and cross-party support will represent a crucial risk. The mission requires close cooperation and alignment between the political municipal processes and the administrative governance systems to reach the necessary democratic legitimacy and a clear mandate for the execution of the mission.

The mission calls for political commitment and inspirational leadership encompassing the whole society as well as broad organizational ownership, performing consistency in strategic planning where the priority of the objective clearly comes across – motivated by a better future for generations.

Category 2: Finance risk sources

700 character(s) maximum

Examples of risk sources:

- Financial requirements and conditions
- Policies and procedures
- Financial management
- Legislative & industry requirements
- Legal costs
- Corruption and fraud
- Fluctuation in credit rate, market, currency
- Inflation

A tight financial situation with limited funds can result in a lack of financing of fundamental welfare services. This may be an important constraint for climate mitigation investments. Local sources of funding are limited. To us, it is cruical that the goal of climate neutrality be reflected concretely by clear alignment at both regional and national levels with regard to tailormade funding schemes and priorities that fully enable the development of urban hubs. At the local level, we believe that professional and methodological advice and examples related to budgeting, financial management and reporting will be important in order to eliminate risk given the scope of the mission.

Category 3: Regulatory risk sources

700 character(s) maximum

Examples of risk sources:
- Legislative requirements
- Changes in the regulatory framework
- Legal and governance obstructions
- Industry regulations and standards
- Legal liabilities
- Departmental guidelines
- Licenses to operate

There are at least two regulatory risks:1 National adoption of EU-regulations relevant for the European Economic Area (EEA). 2 The complexity and high standards of the EU taxonomy. We will need support in navigating the regulations and quickly identify the enabling opportunities embedded. We perceive it as a risk not to be sufficiently familiar with the new taxonomy, with reflections to known issues regarding innovative procurement, combines ownership models and the connection to national legislation in this field. Understanding the possibilities for developing entire circular value chains will also reduce possible contradictions and inefficiencies.

Category 4: Operational risk sources

700 character(s) maximum

Examples of risk sources:
- Policies and procedures
- Financial management
- Contractual agreements
- Contract specifications
- External, outsourced functions
- Asset management
- Resource availability
- Transparency & dispute resolution
- Procurement
- Legal compliance
- Protective security
- Advancement in technology
- Conflicts of interest
- System failures
- Business continuity and disaster response

Lack of national government engagement and coordination will represent a significant risk related to funding, innovative capacity, and the pace of acceleration. As the mission cities are defined as the main instrument for achieving global climate neutrality, national support schemes are vital. Strong coordination and climate targeting of national and regional policy, research, educational and financial instruments are of fundamental importance to ease the ever-increasing constraints on the municipal level. Public procurement legal requirements are complex, and a lack of satisfactory capacity and practices present a potential risk.

Category 5: Organisational risk sources

700 character(s) maximum

Examples of risk sources:
- Managerial responsibilities
- Policies & Procedures
- Legislative requirement
- Divisional planning and management
- Recruitment and allocation of resources
- Workforce and succession planning
- Ethical and Professional conduct
- Governance
- Monitoring
- Independence and quality of evaluation
- Knowledge management
- Budget availability and cash flow
- Internal control
- Procurement

A significant risk is an insufficient adaptation of organisational structures and competence profiles needed to combine the production of mandatory municipal welfare services, and the innovative actions needed to implement the climate-neutral objective. The lack of internal cross-sectoral operational mode, multidisciplinary competence, and continuous focus on outreach activities with the citizens and partners also represents a risk.
Innovative and experimental working practices are not embedded in the typical municipal execution of services and organisational tasks and must be addressed at a strategic level and at an early stage to achieve the mission objective.

Category 6: Partnerships / Stakeholder (Working Together) risk sources

700 character(s) maximum

Examples of risk sources:
- Stakeholder relationships/engagement
- Organisational relations (internal & external)
- Government collaborations
- Capacities of the partners
- Roles and responsibilities among partners
- Public opinion and media
- Leadership
- Communications

The mission's time perspective will involve political elections and turnover among managers and employees, which represent the risk of lack of long-term commitment between the municipality and partners. Ownership of ideas and solutions, implementation, and dissemination of results, must be approached strategically at an early stage. A common understanding must be established on how to capitalize on the knowledge and results achieved related to reaching the climate objective. Further, lack of citizen involvement will be a risk by the possibility of polarization. A potentially divided landscape and irreconcilability will be devastating to the mission.

Category 7: Social risk sources

700 character(s) maximum

Examples of risk sources:
- Social inequality
- Social inclusion
- Human rights
- Community health
- Cultural heritage
- Displacement, resettlement
- Gentrification
- Energy poverty
- Transport poverty
- Poverty
- Labour and working conditions

Tromsø is a diverse city with a population consisting of people from around 140 nations, representing av wide range of lifestyles, cultural features and different everyday life conditions. Risk sources are increased costs caused by climate measures, and negative social consequences such as gentrification of areas, exclusion, transport and energy poverty. A consequence could be increased social inequality, leading to reduced public health, and in turn weaken the climate awareness and support. This requires special attention to widely inclusive processes.

Category 8: Environmental risk sources

700 character(s) maximum

Examples of risk sources:
- Biodiversity conservation and sustainable natural resource management
- Environmental disasters
- Encroachment on rural areas
- Pollution
- Urban heat island effect
- Interference with natural cycles (e.g., migration flows)

Key environmental risks are pollution of water supply, avalanches and land slides (earth and clay) as well as extreme weather events. Being in the Arctic, the changing climate is affecting us at a quicker pace. Furthermore, our region is particularly vulnerable to central transport veines being blocked and rural communities being isolated, especially by avalanches and land slides. Such events will demand a lot of resources from the municipality, thereby carrying the potential to hamper other central city functions as well as efforts in regards to climate neutrality.

Category 9: Safety and Security risk sources

700 character(s) maximum

Examples of risk sources:
- Cyber-security
- Manmade hazards
- Volatile prices and provision (even provisional)
- Civil unrest
- Work health and safety

Among the security risks (ref. Risk and Vulnerability Analyses 2021), we highlight serious power outages, blackouts, cyber attacks, network outage and lack of/violation of key public health provisions such as clean water. Likelihood can not be predicted, and agreements and contracts must incorporate force majeure situations.

Background Documents

Codes and IDs

Language versions

Personal data protection statement

Technical data policy

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Contact

Contact Form