Mirror Mission
Cities Hub Romania

EXPRESSION OF INTEREST

PUTTING PEOPLE AND THEIR CITIES AT THE HEART OF POLICY-MAKING

Promoting and showcasing Romanian cities in their transformation processes towards smart and climate-neutral cities by 2035

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DISCLAIMER

Given that the Mirror Mission Cities Hub Romania mirrors the EU Mission for 100 Climate-Neutral and Smart Cities by 2030, this Expression of Interest form conforms to the template devised by the European Commission for the selection of the 112 cities accepted into the EU Mission for 100 Climate-Neutral and Smart Cities by 2030. Consequently, the questions incorporated in this document were extracted, albeit not in their entirety, from the European form. However, in order to streamline the preparation of the necessary documentation for Romanian cities within this selection process, certain questions from the European model were omitted from this Expression of Interest. It should be noted that the excluded questions do not deviate from the target pattern (i.e., the European standard), as they were removed based on either their incompatibility with the national specifics, or their involvement of a very high level of technical complexity.

INTRODUCTION

As a member of the European Union (EU), Romania is committed to the union's ambitious new Green Deal which requires all member states to cut their absolute greenhouse gas (GHG) emissions by 55 percent (relative to 1990) by 2030 and achieve carbon neutrality by 2050.

According to the EU Environmental Agency's (EEA) projection[1], Romania appears to be on track to achieve the mitigation target for 2030. The country has one of the lowest levels of GHG emissions in tonnes of CO2 equivalent per capita in the EU, together with Malta and Sweden. The share of green energy production in total electricity consumption is also higher than the European average.

However, the country's road to climate neutrality in 2050 is a long and challenging one. The World Bank estimates the investment required for this objective at around 360 billion Euros. These funds would be directed to key sectors, especially energy and transport. Nevertheless, the benefits of the zero emissions target are immeasurable: triple budget revenues, increasing resilience to climate change and creating new jobs.

Cities are central to achieving climate neutrality by 2050.

They concentrate the production and consumption of electricity and heat, the main traffic flows, industrial activities and other activities that generate greenhouse gas emissions. On another note, urban areas also gather the knowledge and skilled workforce that will generate the innovative zero emission solutions.

Three of the Romanian cities (Bucharest - District 2, Cluj-Napoca and Suceava) have already committed to achieving zero emissions by 2030, by recently joining the EU Mission for 100 climate-neutral and smart cities. However, their number is too little compared with the targets envisaged

[1] https://www.elibrary.imf.org/view/journals/018/2023/063/article-A001-en.xml#A001fn06

at the national level. This leads to the need to encourage and support other cities in the country to follow their example.

Therefore, the Mirror Mission Cities Hub Romania will directly support 10 more cities in Romania to become climate neutral by 2035.

The remaining 300 urban centers will indirectly benefit from the efforts made by M100 and will hopefully join this effort in the following years. The process they will go through will be a complex one, inspired by the path designed for the cities in the EU Mission network. It will entail, first of all, the development of coherent and realistic plans of action and investments for climate neutrality, in the framework of a large-scale participatory effort involving all interested stakeholders. This process will also involve a strong cooperation with their counterparts from Norway and Iceland, two of the countries that were successful in setting up a strong foundation for the climate transition of their cities.

The Mirror Mission Cities Hub Romania aims to deliver a minimum of 10 climate-neutral and smart Romanian cities by 2035, leveraging them as hubs for experimentation and innovation to advance all Romanian and global cities toward achieving climate neutrality by 2050, operating within the framework of the EU Mission for Climate-Neutral and Smart Cities.

This Call for Expression of Interest invites the cities that are interested in participating in the Mirror Mission Cities Hub Romania, with a specific focus on achieving climate neutrality by 2035.

Cities can indicate their interest through the (submission process).

The Mirror Mission Cities Hub Romania is not only about further advancing leading cities; it aims to be wholly inclusive by selecting a diverse cohort of cities who are recognized 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 Mirror Mission Cities Hub Romania is designed to help accelerate the progress of Romania's most ambitious cities, its greatest value will be, in fact, to inspire and serve **all Romanian 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.

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 Mirror Mission Cities Hub Romania will select M100 cities with the help of independent external experts.

The Selection Methodology outlines the evaluation process, including the steps, criteria, and scoring details.

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ELIGIBILITY

INFORMATION ABOUT THE CITY

Please select the region in which your city is located

- North-West
- Center
- North-East
- South-East
- South-Muntenia
- Bucharest-Ilfov
- South-West Oltenia
- West

Please select the county in which your city is located

- Alba
- Arad
- Argeș
- Bacău
- Bihor
- Bistrița-Năsăud
- Botoșani
- Brașov
- Brăila
- București - Municipality
- București - District 1
- București - District 2
- București - District 3
- București - District 4
- București - District 5
- București - District 6
- Buzău
- Caraș-Severin
- Călărași
- Cluj
- Constanța
- Covasna
- Dâmbovița
- Dolj
- Galați
- Giurgiu

Gorj
Harghita
Hunedoara
Ialomița
Iași
Ilfov
Maramureș
Mehedinți
Mureș
Neamț
Olt
Prahova
Satu Mare
Sălaj
Sibiu
Suceava
Teleorman
Timiș
Tulcea
Vaslui
Vâlcea
Vrancea

Please provide the official name of your city in Romanian

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

Local Administrative Unit (LAU)
Functional Urban Area (FUA)
Metropolitan area

Please define the national administrative name and/or code that uniquely identifies your city

This information is used to clearly identify the city.

Please specify the number of inhabitants in your city

Eligibility criterion on population size: Cities may participate in the Mirror Mission Cities Hub Romania if they have at least 50.000 inhabitants.

Statistical data accepted for consideration are exclusively sourced from the 2021 National Population and Housing

Census.

COMMITMENT

Eligibility criterion regarding the ambition: Cities can participate in the Mirror Mission Cities Hub Romania only if they confirm their commitment to achieving climate neutrality by 2035, which entails attaining net-zero greenhouse gas emissions by the target year.

Please confirm your city's intention to join the Mirror Mission Cities Hub Romania with the ambition to reach climate-neutrality by 2035

I confirm

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ADDITIONAL INFORMATION

ABOUT THE CITY

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

Only a numerical value is allowed.

Please specify the geographic boundary that corresponds to your city's 2035 climate neutrality target

- Same as the city administrative boundary
- Smaller than the city administrative boundary
- Larger than the city administrative boundary
- Not yet decided

If the boundary is smaller than the city administrative boundary, please identify the excluded area(s) and justify the exclusion(s)

500 character(s) maximum.

Provide a justification why the respective areas are proposed to be excluded from the 2035 target.

If the boundary is larger than the city administrative boundary, please provide further information

500 character(s) maximum.

Please clearly state any additional geographic area(s) covered by the 2035 target.

If not yet decided, please elaborate further

500 character(s) maximum.

Please provide further information on the potential area(s) currently considered to be excluded from or additionally covered by the 2035 target.

ABOUT THE EXPRESSION OF INTEREST

Please confirm that your city intends to address all Green House Gases (GHGs) and sectors / sources of emissions to reach climate neutrality by 2035 as defined by the Mirror Mission Cities Hub Romania.

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

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).

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

If yes, please provide information on the group (list of cities) and the group's coordinating entity

ABOUT THE CITY'S REPRESENTATIVE

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

Name

Surname

Position

Email address

Please confirm the following statement: I hereby declare that I have the consent of the city(ies) administration(s) to respond to this Call for Expression of Interest and to submit

the questionnaire on its/their behalf. I hereby confirm that the information contained in this questionnaire is correct and complete.

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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, 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).
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.

Inventory year (accounting year)

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

- 2005
- 2006
- 2007
- 2008
- 2009

2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

Population in accounting year

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

If other, please specify

Please indicated the sectors/sources 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.

Stationary energy
Transport

Waste/wastewater
Agriculture, Forestry, and Other Land Use (AFOLU)
Industrial Processes and Product Use (IPPU)
Energy generation
Other, please specify

If other, please specify

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

CO2
CH4
N2O
HFCs
PFCs
SF6
NF3

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.

Sectors	Total emissions (metric tonnes CO2e)
Stationary energy This should cover direct and indirect emissions.	
Transport	

This should cover direct and indirect emissions.	
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).	
Industrial Processes and Product Use (IPPU) This should cover direct emissions.	
Agriculture, Forestry, and Other Land Use (AFOLU) This should cover direct emissions.	
Other (please specify in the additional question below)	
TOTAL EMISSIONS (excluding generation of grid-supplied energy)	
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

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. For example, NO may be used for the Aviation sub-sector if there are no aviation activities that both start and end within the city boundary.
“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 (please specify in column "Additional Information")				
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

Yes, at least every 2 years Yes, at least every 4 years

Yes, less frequently than every 4 years

No

TRENDS

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

1.000 character(s) maximum.

Please describe the trend over time. Clearly specify the units of measurement (i.e. whether absolute or per capita).

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).

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CURRENT POLICIES

The questions in this section invite you to highlight your city's climate ambition and policies up to now. The Mirror Mission Cities Hub Romania 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 GHG 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 2024)?

- Yes
- No
- Planned

Please state the target and its official source

1000 character(s) maximum.

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

Please specify the sectors covered by the target

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

Please specify the reduction percentage

Please specify the reduction percentage.

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

- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
- 2023
- 2024

Please specify the target year

- 2025
- 2026
- 2027
- 2028
- 2029
- 2030
- 2031
- 2032
- 2033
- 2034
- 2035

2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046
2047
2048
2049
2050

Please upload the official source including the stated target

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 2014 (included)?

2014 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)
Integrated urban Development strategy (SuDs)

Climate change mitigation plan
Other (sectoral or cross-sectoral)
Waste/wastewater management plan
Air quality plan
Green infrastructure plan

Name

Year of adoption

2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Not applicable

End year

2020-2024
2025-2029
2030-2034
2035-2039
2040-2044
2045-2049
Beyond 2050
Not applicable

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)
Integrated urban Development strategy (SuDs)
Climate change mitigation plan
Other (sectoral or cross-sectoral)
Waste/wastewater management plan
Air quality plan
Green infrastructure plan

Name

Year of adoption

2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Not applicable

End year

- 2020-2024
- 2025-2029
- 2030-2034
- 2035-2039
- 2040-2044
- 2045-2049
- Beyond 2050
- Not applicable

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 or smart strategies or action plans.

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

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Name

Year of adoption

- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
- 2023
- 2024
- Not applicable

End year

- 2020-2024
- 2025-2029
- 2030-2034
- 2035-2039
- 2040-2044
- 2045-2049
- Beyond 2050
- Not applicable

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 or smart strategies or action plans.

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

Name

Year of adoption

2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Not applicable

End year

2020-2024
2025-2029
2030-2034

2035-2039
2040-2044
2045-2049
Beyond 2050
Not applicable

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 or smart strategies or action plans.

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

Name

Year of adoption

- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
- 2023
- 2024
- Not applicable

End year

- 2020-2024
- 2025-2029
- 2030-2034
- 2035-2039
- 2040-2044
- 2045-2049
- Beyond 2050
- Not applicable

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).

Nearly Zero Energy Buildings (NZEBs) (new buildings)
Positive Energy Buildings
Nearly Zero Energy Buildings (NZEBs) (renovation of existing buildings)
Energy renovation/retrofit of existing buildings (below NZEB level)
Building electrification
Energy efficient electrical appliances
Integrating RES systems into the building
Building Automation and Control Systems (BACS)/Building Energy Management Systems (BEMS)
Nearly Zero / Positive Energy Districts
Digitalisation and smart city solutions
Local heat/cold storage
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)
District heating/cooling
Demand response

Virtual power plants
Urban heat island effect mitigation
Mixed-use development and sprawl containment
Urban regeneration
Behavioural changes

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

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
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)
Infrastructure measures (e.g. upgrade of power plants, increase of RES capacity, smart grids)
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)
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
Commercial buildings and facilities
Institutional buildings and facilities
Industrial buildings and facilities
Social housing
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

Below 20%
20%-39%
40%-59%
60%-80%
Over 80%
Not known

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

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

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).

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

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

Coal
Gas
Nuclear
Other

If available, which strategies are in place in your city to reduce the urban heat island effect and associated energy consumption?

For a compendium of strategies, you can consult https://www.epa.gov/heatislands/heat-island-cooling-strategies.

Increasing tree and vegetative cover
Installing green roofs
Installing cool-mainly reflective-roofs
Installing evaporative cooling features (e.g., fountains, sprinklers, misting systems)
Using cool pavements (either reflective or permeable)
Utilizing smart growth practices
Other measures

CURRENT POLICIES - TRANSPORT

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

Cleaner/efficient vehicles
Clean buses
Electric vehicles (incl. infrastructure)
Investment in metros and railways
Accessibility of public transport
Modal shift to walking & cycling, incl. infrastructure
Car sharing
Ride-sharing/car-pooling initiatives
Park and ride facilities
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
Mixed use development and sprawl containment
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.

Technical measures (e.g. smart cards for public transport)
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)
Planning solutions (e.g. SUMP or integrated land use and transport planning)
Financial incentives and fiscal instruments (e.g. subsidies, taxes, congestion pricing schemes)
Public Private Partnerships
Voluntary measures with stakeholders

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
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
Management of biodegradable municipal waste
Municipal waste prevention
Food waste prevention
Redirecting food surplus and food scraps
Litter prevention in public spaces and/or marine litter prevention
Industrial symbiosis between local businesses
Sustainable buildings
Circular economy business models, aimed at encouraging the reuse, repair and/or recycling of products
Efficient thermal treatment/ landfill management
Efficient waste /landfill gas to energy / fuel
Wastewater reuse
Stormwater management

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

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
Information/awareness raising (e.g. litter prevention campaigns, recycling campaigns)
Infrastructure measures (e.g. reprocessors, recycling centres, waste-to-energy facilities)
Voluntary measures with stakeholders

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

Plastics
Glass
Cardboard and paper
Metal
Food waste
Garden/Yard waste
Waste electrical and electronic equipment
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: https://research-and-innovation.ec.europa.eu/document/download/cb258381-77d5-435a-8b25-9a590795dc9e_en?filename=ec_rtd_eu-mission-climate-neutral-cities-infokit.pdf

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

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
Available in-house
Work with external organisation/expert
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
National and/or regional funding
Public-private partnership (PPP)
Private investment
Blended finance
City budget

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

No
Academia/R&I institutions
Private sector
National/regional authorities
Other cities
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: https://research-and-innovation.ec.europa.eu/document/download/cb258381-77d5-435a-8b25-9a590795dc9e_en?filename=ec_rtd_eu-mission-climate-neutral-cities-infokit.pdf

- No
- Living labs
- Testbeds
- Regulatory sandboxes
- Other

If other, please specify

500 character(s) maximum

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.

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)

100 character(s) maximum

Sector(s) covered

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

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

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

MEASURE 2

Measure (short description)

100 character(s) maximum

Sector(s) covered

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

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

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

MEASURE 3

Measure (short description)

100 character(s) maximum

Sector(s) covered

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

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

Cross-sectoral

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

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

MEASURE 4

Measure (short description)

100 character(s) maximum

Sector(s) covered

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

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

Degree of implementation

Fully implemented
Under implementation
Not started

Scale

Smaller than district/neighbourhood scale
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City scale
Greater than city scale

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Transport
Waste/wastewater
Agriculture, Forestry, and Other Land Use (AFOLU)
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Energy generation
Cross-sectoral

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

R&I PROJECTS

Has your city participated in any European R&I project relevant to climate change mitigation/GHG emissions reduction since 2014 (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

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 cities
- Case studies
- Partners
- Followers
- Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2035 climate neutrality target

500 character(s) maximum

R&I PROJECT 2

Project Name

100 character(s) maximum

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 cities
- Case studies
- Partners
- Followers
- Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2035 climate neutrality target

500 character(s) maximum

R&I PROJECT 3

Project Name

100 character(s) maximum

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 cities
Case studies
Partners
Followers
Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2035 climate neutrality target

500 character(s) maximum

R&I PROJECT 4

Project Name

100 character(s) maximum

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 cities
Case studies

Partners
Followers
Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2035 climate neutrality target

500 character(s) maximum

R&I PROJECT 5

Project Name

100 character(s) maximum

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 cities
Case studies
Partners
Followers
Other

Briefly specify how this project has contributed or is expected to contribute to advancing towards the 2035 climate neutrality target

500 character(s) maximum

INITIATIVES

Has your city joined any other specific initiatives relevant to climate change mitigation/GHG emissions reduction since 2014 (included)?

With initiatives we refer for example to the Covenant of Mayors for Climate and Energy, the 100 Intelligent Cities Challenge or the City Science Initiative.

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.

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

Replicator

Observer
Other
Not known
Not applicable

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

1000 character(s) maximum

Briefly specify how this initiative has contributed or is expected to contribute to your city advancing towards the 2035 climate neutrality target

1000 character(s) maximum

INITIATIVE 2

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
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Follower cities could fall under replicator or observer, depending on whether they implement any action or not.

- Demonstrator
- Replicator
- Observer
- Other
- Not known
- Not applicable

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

1000 character(s) maximum

Briefly specify how this initiative has contributed or is expected to contribute to your city advancing towards the 2035 climate neutrality target

1000 character(s) maximum

INITIATIVE 3

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.

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;
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Follower cities could fall under replicator or observer, depending on whether they implement any action or not.

Demonstrator
Replicator
Observer
Other
Not known
Not applicable

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

1000 character(s) maximum

Briefly specify how this initiative has contributed or is expected to contribute to your city advancing towards the 2035 climate neutrality target

1000 character(s) maximum

INITIATIVE 4

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.

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;

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- 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
Replicator
Observer
Other
Not known
Not applicable

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

1000 character(s) maximum

Briefly specify how this initiative has contributed or is expected to contribute to your city advancing towards the 2035 climate neutrality target

1000 character(s) maximum

INITIATIVE 5

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

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Definition and examples for each term. The city is considered:

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- 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
Replicator
Observer
Other
Not known
Not applicable

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

1000 character(s) maximum

Briefly specify how this initiative has contributed or is expected to contribute to your city advancing towards the 2035 climate neutrality target

1000 character(s) maximum

AWARDS

Has your city ever been nominated for or participated in any awards or competitions relevant to climate change mitigation/GHG emissions reduction since 2014 (included)?

Yes
No

How many awards would you like to provide information about?

1
2
3
4
5

AWARD 1

Award name

100 character(s) maximum

Please indicate any awards or competitions, whether at national, EU or other level, whether you applied for them or were nominated.
Examples of awards and competitions relevant to climate change mitigation:
- Covenant of Mayors Awards
- CIVITAS Awards
- SUMP Award
- New European Bauhaus Prizes
- European Capital of Innovation Award
- European Green Capital Award
- European Green Leaf Award
- European Mobility Week Awards
- One Planet City Challenge
- European Energy Award Gold
- The Transformative Action Award
- European Green Cities Award
- World Smart City Awards
- CDP Europe Awards
- C40 Cities Bloomberg Philanthropies Awards
- Climate Star Award
- CityStar (RegioStars)
- Other National Awards (e.g., AHK Awards, The Green Cities Awards granted by the Romanian Association of Municipalities)
If relevant to climate neutrality, other national awards or competitions can be mentioned here

Result

Winner
Finalist
Participant

AWARD 2

Award name

100 character(s) maximum
Please indicate any awards or competitions, whether at national, EU or other level, whether you applied for them or were nominated.
Examples of awards and competitions relevant to climate change mitigation:
- Covenant of Mayors Awards
- CIVITAS Awards
- SUMP Award
- New European Bauhaus Prizes
- European Capital of Innovation Award
- European Green Capital Award
- European Green Leaf Award
- European Mobility Week Awards
- One Planet City Challenge
- European Energy Award Gold

- The Transformative Action Award
- European Green Cities Award
- World Smart City Awards
- CDP Europe Awards
- C40 Cities Bloomberg Philanthropies Awards
- Climate Star Award
- CityStar (RegioStars)
- Other National Awards (e.g., AHK Awards, The Green Cities Awards granted by the Romanian Association of Municipalities)

If relevant to climate neutrality, other national awards or competitions can be mentioned here

Result

Winner
Finalist
Participant

AWARD 3

Award name

100 character(s) maximum

Please indicate any awards or competitions, whether at national, EU or other level, whether you applied for them or were nominated.

Examples of awards and competitions relevant to climate change mitigation:

- Covenant of Mayors Awards
- CIVITAS Awards
- SUMP Award
- New European Bauhaus Prizes
- European Capital of Innovation Award
- European Green Capital Award
- European Green Leaf Award
- European Mobility Week Awards
- One Planet City Challenge
- European Energy Award Gold
- The Transformative Action Award
- European Green Cities Award
- World Smart City Awards
- CDP Europe Awards
- C40 Cities Bloomberg Philanthropies Awards
- Climate Star Award
- CityStar (RegioStars)
- Other National Awards (e.g., AHK Awards, The Green Cities Awards granted by the Romanian Association of Municipalities)

If relevant to climate neutrality, other national awards or competitions can be mentioned here

Result

Winner
Finalist
Participant

AWARD 4

Award name

100 character(s) maximum
Please indicate any awards or competitions, whether at national, EU or other level, whether you applied for them or were nominated.
Examples of awards and competitions relevant to climate change mitigation:
- Covenant of Mayors Awards
- CIVITAS Awards
- SUMP Award
- New European Bauhaus Prizes
- European Capital of Innovation Award
- European Green Capital Award
- European Green Leaf Award
- European Mobility Week Awards
- One Planet City Challenge
- European Energy Award Gold
- The Transformative Action Award
- European Green Cities Award
- World Smart City Awards
- CDP Europe Awards
- C40 Cities Bloomberg Philanthropies Awards
- Climate Star Award
- CityStar (RegioStars)
- Other National Awards (e.g., AHK Awards, The Green Cities Awards granted by the Romanian Association of Municipalities)
If relevant to climate neutrality, other national awards or competitions can be mentioned here

Result

Winner
Finalist
Participant

AWARD 5

Award name

100 character(s) maximum
Please indicate any awards or competitions, whether at national, EU or other level, whether you applied for them or were nominated.
Examples of awards and competitions relevant to climate change mitigation:
- Covenant of Mayors Awards

- CIVITAS Awards
- SUMP Award
- New European Bauhaus Prizes
- European Capital of Innovation Award
- European Green Capital Award
- European Green Leaf Award
- European Mobility Week Awards
- One Planet City Challenge
- European Energy Award Gold
- The Transformative Action Award
- European Green Cities Award
- World Smart City Awards
- CDP Europe Awards
- C40 Cities Bloomberg Philanthropies Awards
- Climate Star Award
- CityStar (RegioStars)
- Other National Awards (e.g., AHK Awards, The Green Cities Awards granted by the Romanian Association of Municipalities)

If relevant to climate neutrality, other national awards or competitions can be mentioned here

Result

Winner
Finalist
Participant

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
Preparing to perform such assessments in the future
Not intending to perform such assessments
I don't know

If yes, which of the following co-benefits or adverse impacts generated by local scale climate mitigation policies have been evaluated?

Assessing energy and transport poverty means to measure the amount of money spent on energy / transport and selecting indicators / thresholds to define the onset of a state or condition in which citizens (individuals or communities) lack essential resources.

Economic

Job creation
Revenue generation
Costs

- Energy security
- Business/technological innovation
- Labour productivity
- Labour conditions
- Economic production
- Natural resource depletion
- Congestion
- Disruption of energy, transport, water and communications networks
- Economic impact of disasters

Social

- Water security
- Food security
- Mobility and access
- Road safety
- Energy poverty
- Transport poverty
- Security/protection for poor/vulnerable populations
- Social inclusion, equality and justice
- Transparency and accountability
- Education and public awareness
- Number of households and businesses forced from homes/places of work

Public Health

- Physical health
- Mental wellbeing/quality of life
- Air quality
- Preparedness for health service delivery
- Health impacts from extreme heat or cold weather
- Disaster/disease/contamination-related health impacts
- Premature deaths
- Health costs

Environmental

- Resilience to climate change/adaptation
- Water/soil quality
- Noise pollution
- Light pollution
- Green space coverage and quality
- Biodiversity and ecosystem services

In your previous answer, you indicated that your city is evaluating specific social co-benefits and adverse impacts. Is your city specifically addressing any of these social aspects in its territory?

This question is linked to the following answer options in the previous question: energy poverty; transport poverty; security/protection for poor/vulnerable populations; social inclusion, equality and justice; number of households and businesses forced from homes/places of work.

Yes

No

If yes, please provide further details or examples.

1500 character(s) maximum

Please briefly describe any alleviation measures your city has put in place.

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Cities Hub Romania

AMBITION FOR CLIMATE NEUTRALITY

This section gives you the opportunity to articulate your city's motivation for joining the Mirror Mission Cities Hub Romania and in particular the climate neutrality ambition it intends to pursue as part of M100. 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 2035 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 2035. These details are anticipated to be delineated at a later stage during the formulation of the Climate City Contract (Actions, Investments, Official Commitments). This process will be supported by the Mirror Mission Cities Hub Romania.

Questions in this section address your city's 2035 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 Mirror Mission Cities Hub Romania.

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 2035, i.e. how the city plans to accelerate the transition and close the gap to (net-) zero GHG emissions by 2035

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.

YOUR CITY'S AMBITION

Is your city aiming at climate neutrality by reaching absolute-zero or net-zero GHG emissions by 2035?

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: https://research-and-innovation.ec.europa.eu/document/download/cb258381-77d5-435a-8b25-9a590795dc9e_en?filename=ec_rtd_eu-mission-climate-neutral-cities-infokit.pdf

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 2035

Residual emissions: GHG emissions which are very difficult or disproportionately costly to mitigate by 2035.

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 2035?

Not yet known

Stationary energy

Transport

Waste/wastewater

Agriculture, Forestry, and Other Land Use (AFOLU)

Industrial Processes and Product Use (IPPU)

Energy generation

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: https://research-and-innovation.ec.europa.eu/document/download/cb258381-77d5-435a-8b25-9a590795dc9e_en?filename=ec_rtd_eu-mission-climate-neutral-cities-infokit.pdf

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

If yes, you may describe your strategy or vision

1000 character(s) maximum

Does your city aim to achieve climate neutrality even before 2035?

- Yes
- No

If yes, please select the target year

- 2025
- 2026
- 2027
- 2028
- 2029
- 2030
- 2031
- 2032
- 2033
- 2034

FUTURE PICTURE - CLOSING THE GAP

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

Stationary energy (excl. 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
- On-site and nearby renewable energy generation
- Building Automation and Control Systems (BACS)/Building Energy Management Systems (BEMS)
- Nearly Zero/Positive Energy Districts
- Digitalisation and smart city solutions
- Local heat/cold storage
- Behavioural changes
- Positive Energy Buildings
- Energy renovation/retrofit of existing buildings (below NZEB level)
- Citizen and renewable energy communities
- Demand response

Public lighting

- Energy efficiency
- Integrated renewable energy
- Information and Communication Technologies

Transport

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

Waste

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

Renewable energy generation

Wind power
Solar thermal
Virtual power plants
Photovoltaic
Geothermal energy

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

Other

Energy efficiency in industrial processes
Renewable energy in industrial processes
Energy efficiency in agriculture and forestry processes
Renewable energy in agriculture and forestry processes
Information and Communication Technologies in Agriculture, Forestry, and Other Land Use (AFOLU)/Industrial Processes and Product Use (IPPU)
Natural carbon sinks (e.g., tree planting)
Hydrogen technologies
Urban heat island effect mitigation
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 (excl. public lighting)

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

If other, please specify

100 character(s) maximum

Public lighting

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

If other, please specify

100 character(s) maximum

Transport

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

If other, please specify

100 character(s) maximum

Waste/wastewater

- Awareness raising/training

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

If other, please specify

100 character(s) maximum

Renewable energy generation

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

If other, please specify

100 character(s) maximum

Other

Awareness raising/training
Energy management
Energy certification/labelling
Energy performance standards
Energy/carbon taxes

Grants and subsidies
Third party financing
Public Private Partnerships
Land use planning regulation
Voluntary agreements with stakeholders
Not applicable
Other

If other, please specify
100 character(s) maximum

List up to 3 interventions per sector that could be scaled up by 2035. 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

Intervention 2
500 character(s) maximum

Intervention 3
500 character(s) maximum

PUBLIC LIGHTING

Intervention 1
500 character(s) maximum

Intervention 2
500 character(s) maximum

Intervention 3

500 character(s) maximum

TRANSPORT

Intervention 1

500 character(s) maximum

Intervention 2

500 character(s) maximum

Intervention 3

500 character(s) maximum

WASTE

Intervention 1

500 character(s) maximum

Intervention 2

500 character(s) maximum

Intervention 3

500 character(s) maximum

RENEWABLE ENERGY GENERATION

Intervention 1

500 character(s) maximum

Intervention 2

500 character(s) maximum

Intervention 3

500 character(s) maximum

OTHER

Intervention 1

500 character(s) maximum

Intervention 2

500 character(s) maximum

Intervention 3

500 character(s) maximum

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PARTNERSHIPS

Collaboration with other levels of government, citizens and different stakeholders will be critical for accelerating the transition to 2035 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 identify best practices and what future support needs to be put together for cities in the Mirror Mission Cities Hub Romania.

... 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?

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

If other, please specify

500 character(s) maximum

... 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?

- Policy and regulation formulation

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

Which types of support from other levels of government (regional/national) does your city consider most important to achieve the climate neutrality 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.

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

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 2035, appart from the current one.

1500 character(s) maximum

... 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 2035

800 character(s) maximum

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
Public Private Partnerships for climate neutral infrastructure and services
Crowdfunding from companies and SMEs in climate neutral infrastructure and services
Climate neutrality in business operation and improving value chains
Promoting start-ups and green jobs creation
Establishment of net-zero goals
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
Informative practices and awareness-raising events
Participatory budgeting to prioritise actions
Participatory urban planning
Ad-hoc co-creation engagement practices
Educational activities and programmes
Other
None

If other, please specify

500 character(s) maximum

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.)).

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 shared mobility
- Reducing overconsumption and favouring ethical consumption of goods
- Reducing and manage sorting household waste

Please note that Scope 3 emissions with the exception of waste/wastewater lie outside the Mission's definition of climate neutrality. For further information please consult the InfoKit, Part II, Section 2.4: https://research-and-innovation.ec.europa.eu/document/download/cb258381-77d5-435a-8b25-9a590795dc9e_en?filename=ec_rtd_eu-mission-climate-neutral-cities-infokit.pdf

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

If other, please specify

100 character(s) maximum

... 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

If yes, please specify

1000 character(s) maximum

This could involve membership in city networks with this thematic focus focusing also on climate change mitigation; participation in peer exchange programmes; collaboration in related projects; joint development of policies/programmes etc.

Please rate the intensity of your current level of cooperation with neighbouring cities and surrounding Local Administrative Units 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						

If not applicable please explain

500 character(s) maximum

… 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

Mirror Mission
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QUALITY OF INTERVENTIONS AIMED AT REDUCING THE GHG EMISSIONS

Describe your commitment to the quality of interventions aimed at reducing the GHG emissions. Please indicate your approach to the quality of your past plans and actions, and present, if deemed necessary, adjustments and improvements.

Please note that quality will be understood in terms of improvements to the architectural and urban value and attractiveness, and in promoting current visions on urban development, such as preference to reuse and renovation of existing building stock over demolish and build new; preference to considerate solutions, that include architectural, ecological and social values, in all energy renovation projects; use of local / locally sourced materials and techniques; apply circular economy principles and strategies; use culturally and ecologically proven local strategies to climate

Examples: prioritize increasing architectural and urban values through renovation measures; prioritize renovation and reuse of existing building stock over demolition and replacement; incentivize sensitive energy renovation of cultural heritage buildings and areas; restrict greenfield development and control expansion of urbanized land;

3000 character(s) maximum

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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 2035 will be an integral part of the process, and assistance for this will be offered by the Romania M100 Hub.

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 2035 will only need to be clarified in the next phase. Targeted assistance will be provided to the Mirror 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

If yes, please provide the estimate (in EUR)

Only numerical input accepted.

SOURCE

For the estimate provided above, please provide a breakdown per funding/financing source in the section below (in %)

Own funds

Regional, national, EU funds and financing

Private financing

Other

If available, you may upload documentation that supports the figures provided in the previous questions

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 neutrality 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 chose 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.

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, paybacks periods, detailed benefits etc.

No
We are just starting with a climate action plan
We do have a pipeline of projects that are ready for investment
We do 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: https://research-and-innovation.ec.europa.eu/document/download/cb258381-77d5-435a-8b25-9a590795dc9e_en?filename=ec_rtd_eu-mission-climate-neutral-cities-infokit.pdf

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

If you selected other innovative financing schemes, please specify

1000 character(s) maximum

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 Mirror Mission Cities Hub Romania.

The second 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 identify best practices and what future support needs to be put together for M100 cities.

OVERALL CAPACITY AND ORGANISATION

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

1000 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.

In the event that your city is selected for the Mirror Mission Cities Hub Romania, is your city considering changing/adapting the current governance structure (e.g. having a permanent climate expert/team on staff)?

- Yes
- No

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

1000 character(s) maximum

STAFF CAPACITY AND SKILLS

Do you think that there is sufficient staff available to design and implement an Action and Implementation Plan for the Transition to Climate Neutrality, with the help of the Mirror Mission Cities Hub Romania?

- Yes
- We are undertaking steps to allocate additional staff
- 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

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)					

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
Regional government
Local government
Academia / R&I institutions
Private sector
Trade unions
NGOs and associations
Utilities
Citizens
Other

If other, please specify

100 character(s) maximum

Mirror Mission
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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					

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 2035. All cities participating in the Mirror Mission Cities Hub Romania 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.

ACROSS SECTORS

What are the main barriers/gaps/assistance needs that your city envisages in pursuing climate neutrality by 2035?

at most 6 choice(s)

Useful definitions:

- Regulatory red tape: the complex 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, as described in http://publications.europa.eu/resource/cellar/97c92108-3474-4426-887e-ba70725f7250.0001.01/DOC_1).
- 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 landuse 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
Slow/disaggregated financial process
Insufficient administrative and/or operational capacity
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
Geomorphic/topographic limitations/challenges
Growth schemes limitations/challenges
Lack of market competition
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
Fragmentation of responsibilities
Difficulties in building collaborations between public and private sectors
Uncertainty about regulation and taxation
Prohibitive investment costs
Climatic limitations/challenges
Lack of funding/financing schemes
Lack of technical or commercial skills and information
Other

If other, please specify

500 character(s) maximum

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 2035 (if any)?

1000 character(s) maximum

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

SECTOR-SPECIFIC

What barriers/gaps/assistance needs specific to the energy sector does your city expect to encounter when pursuing climate neutrality by 2035?

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
High initial capital costs
Difficulty of fuel price risk assessment
Unfavourable power pricing rules
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
Transaction costs
Tendency to overlook environmental externalities
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
Perceived technology performance uncertainty and risk
Site specific constraints
Other

If other or "site-specific constraints", please specify

1000 character(s) maximum

What barriers/gaps/assistance needs specific to the transport sector does your city expect to encounter when pursuing climate neutrality by 2035?

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/)

- Subsidies for competing fuels
- High initial capital costs
- Lack of cross-modal ticketing and payment systems (to encourage modal shift)
- 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
- Lack of effective and sustainable transport policy at local level
- Lack of enabling transport policy at Member State level
- Lack of enabling transport policy at EU level
- 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

If other or "site-specific constraints", please specify

1000 character(s) maximum

What barriers/gaps/assistance needs specific to the waste/wastewater management sector does your city expect to encounter when pursuing climate neutrality by 2035?

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

- Insufficient waste separation and quality of separated waste
- Inefficient recycling processes
- Insufficient data collection
- Inefficient energy recovery of waste
- Ineffective waste prevention
- Lack of effective and sustainable waste management policy at local level
- Lack of enabling waste policy at MS level

Lack of enabling waste policy at EU level
Difficult balancing between promoting recycling and protecting consumers against harmful chemical substances in recycled materials
Slow behavioural transformation, including cultural barriers
Limited community engagement and support
Spread of illegal practices in shipping, dumping or burning waste
Lack of infrastructure for circular economy measures
Weaker norms outside the EU which incentivise waste export
Downcycling
Other

If other, please specify

1000 character(s) maximum

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"

1000 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.

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 2035

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

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

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

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

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

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

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

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)

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