LET'SGOV!
9 Cities for Climate Governance

D7 – Sensemaking Guidelines at network, cluster and city level

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A7.1 - PROPOSED METHODOLOGY FOR SENSEMAKING AND IMPACT MONITORING

Summary

The following document analyzes the proposed methodologies for the monitoring and sensemaking activities in the Let'sGOv project.

Proposed methodology for impact monitoring

The proposed methodology for monitoring in the Let'sGOv project is represented by the analysis of Key Performance Indicators (KPIs). In particular, the project and its related impacts (both direct – on emissions reduction – and indirect) were analyzed and some KPIs were selected to compose the Monitoring, Evaluation and Learning (MEL) framework. Other KPIs were defined as additional, to be voluntarily chosen by the 9 cities involved in the project, if considered useful and relevant in order to monitor the implementation and the related success of the test-beds.

Proposed methodology for impact evaluation (Sensemaking)

The evaluation of the impacts and the lessons learned from the project will be conducted through sensemaking activities. Specifically, sensemaking is the process through which it is possible to make sense of personal and collective experiences. In the case of complex problems, which do not have solutions in a single sector but require systemic interventions, such as reducing emissions related to the energy system in a city, it is necessary to create processes that allow us to promptly notice which interventions are working and which need to be modified and how. Sensemaking activity addresses this need by representing a simplified and periodic process of observation, reflection, and common synthesis, which allows for the development of greater awareness of reality, the identification of ongoing transition dynamics, and the creation of a common language among various stakeholders.

Figure 1 – Sensemaking

The proposed methodology for sensemaking activities is the X-Curve, a visual tool developed by Drift and Climate-KIC Transitions Hub. The objective of this methodology is to create awareness and a shared vision of transition dynamics within society. Transitions are considered as the sum of two parallel processes: a creation process and a breakdown process.

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The creation process, represented by the blue curve in the following figure, depicts the steps following transformative innovations, which diverge from the current system and converge towards defining a new system. These innovations start as experiments and become increasingly widespread and economical over time, emerging as alternatives to the current system. The emergence of new forms of organization allows for their institutionalization and subsequent stabilization.

The second process, represented by the orange curve, is linked to the breakdown of the current system. In fact, systems within society, such as the food, energy, and transportation, result from long optimization processes that have allowed them to function properly for a long time. However, the emergence of external pressures, such as climate change and digitalization, has put pressure on the systems, questioning their long-term sustainability and initiating the breakdown process. The destabilization of systems can lead to the creation of chaotic situations and, eventually, the abandonment of some elements of the original system.

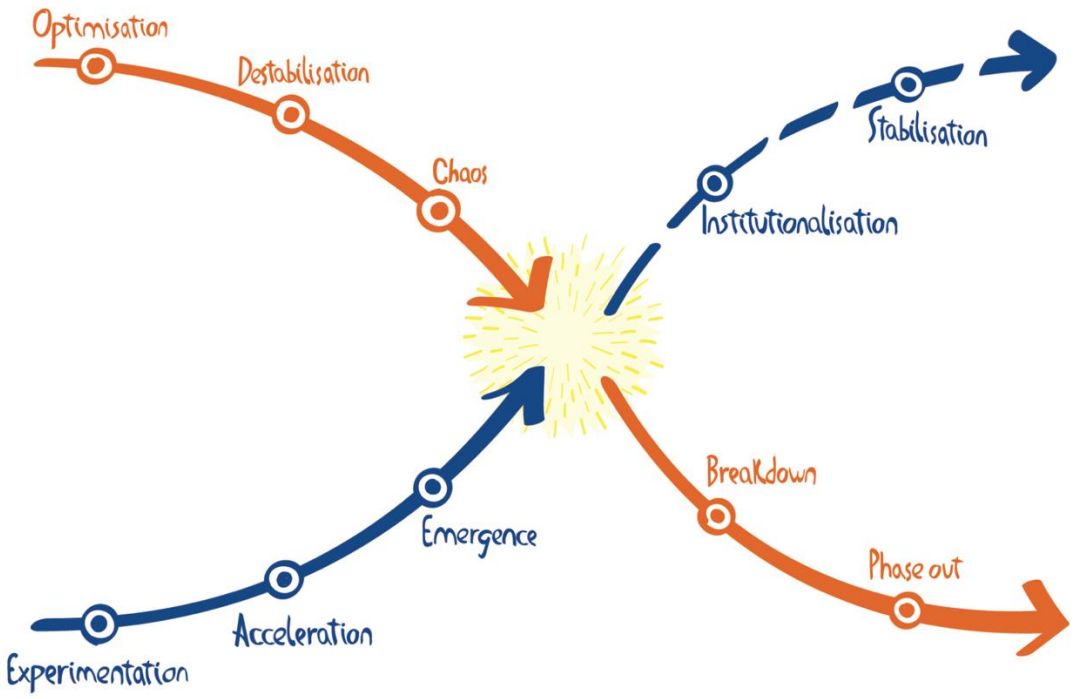

Figure 2 - X-Curve

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A7.2 – IDENTIFICATION AND DEFINITION OF CRITICAL KPIs

Summary

The following document defines the Key Performance Indicators (KPIs) that have been identified for evaluating the impacts of the Let'sGOv project.

Project description

The Let'sGOv initiative aims to reduce GHG emissions from the energy system by improving governance models. Buildings, transportation, and production are the main sources of CO2eq emissions in cities; addressing these sectors is crucial for achieving climate goals by 2030. To accelerate climate neutrality, public and private actions must be implemented. To reach this goal, some internal (within municipalities) and external (between public sector and stakeholders) governance criticalities must be tackled:

- **Internal organizational silos within public entities** impede coordinated and integrated processes, resulting in limited awareness of climate and energy issues within municipal sectors. This hinders the prioritization of climate neutrality across all municipal functions.
- **Limited external communication and engagement with relevant stakeholders (e.g. utilities) at the intercity level** is a significant barrier to addressing key challenges faced by cities, such as rising energy costs and the lack of standardized protocols to support the energy transition.
- **Limited access to energy data (especially for public and private buildings and infrastructures)** creates difficulties for informed decision-making processes. Indeed, the lack of protocols for sharing comprehensive and up-to-date energy data poses a substantial constraint, mainly for municipal decision makers.
- **Lack of standardized pathways and shared protocols for implementing innovative energy activities**, such as energy communities, results in bureaucratic hurdles.
- **Insufficient cross-departmental cooperation and transectoral knowledge within municipalities** hinder the sharing of best practices.
- **Limited capacity to engage citizens and stakeholders and involve them** in strategic decision-making processes leads to a lack of trust and acceptance.

To address these common barriers within the 9 Mission Cities (MCs), three challenges have been identified to focus on (Cluster level):

- **Engagement Cluster**: promoting citizen and stakeholders engagement, information sharing, and collaboration in the energy system to reduce energy consumption and facilitate the dissemination of these solutions across multiple levels.
- **Data Cluster**: establishing an integrated information sharing system to support decision-making, policy calibration, efficient design, and continuous monitoring.
- **Finance Cluster**: expediting, adapting, and strengthening funding mechanisms and exploring innovative financing schemes for energy efficiency initiatives.

On top of that, the MCs are dedicated to collectively experimenting with multi-level and multi-stakeholder governance, within two additional levels: the network and the city levels.

- Network Level: this level facilitates collaboration among the 9 MCs through cross-city bench learning. It involves exchanging experiences, sharing good practices, and enhancing cooperation for joint and coordinated dialogue with national stakeholders and the Government;
- City Level: this level focuses on implementing specific experiments to develop tailored solutions for individual cities' needs.

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NZC – MEL indicator framework

Monitoring, Evaluation, and Learning (MEL) activities within the Net Zero Cities (NZC) Pilot Programme are interconnected processes aimed at assessing progress towards climate neutrality through pilot initiatives, and to identify and take lessons for enhancing the capacities of the engaged actors. They also facilitate knowledge sharing among Pilot Cities to maximize impact.

Monitoring involves the development and application of quantitative indicators to track cities' progress towards achieving both direct impacts, such as net-zero greenhouse gas emissions, and indirect impacts, including co-benefits. Additionally, it encompasses the establishment and management of data collection tools and infrastructure.

Evaluation entails analyzing and assessing monitoring information against predetermined goals, targets, and benchmarks. The objective is to determine the extent to which critical milestones, intermediate outcomes, and final impacts have been achieved.

Learning is a structured and ongoing process of synthesizing insights to understand which solutions are effective, in what contexts, for whom, and why. This iterative process helps cities adapt and refine their strategies based on real-time evidence.

These activities generate valuable evidence and knowledge to enable adaptive governance and refine the course of action.

Different impact categories are identified by Net Zero Cities:

- **Direct Impacts** are the long-term quantified effects produced by the project activities/interventions related to the GHG mitigation/reduction in one or more emission domains for the city.
- **Indirect Impacts** or **Co-benefits** expected to be produced during or after the project duration (either qualitative or quantitative) because of the Pilot activities/interventions. These also include long-term non-GHG impacts, if any.
- **Intermediate Outcomes** are the qualitative and observable changes/insights related to the process of implementing the portfolio, produced either early (short-term) or later (medium-term) during the project timeline.

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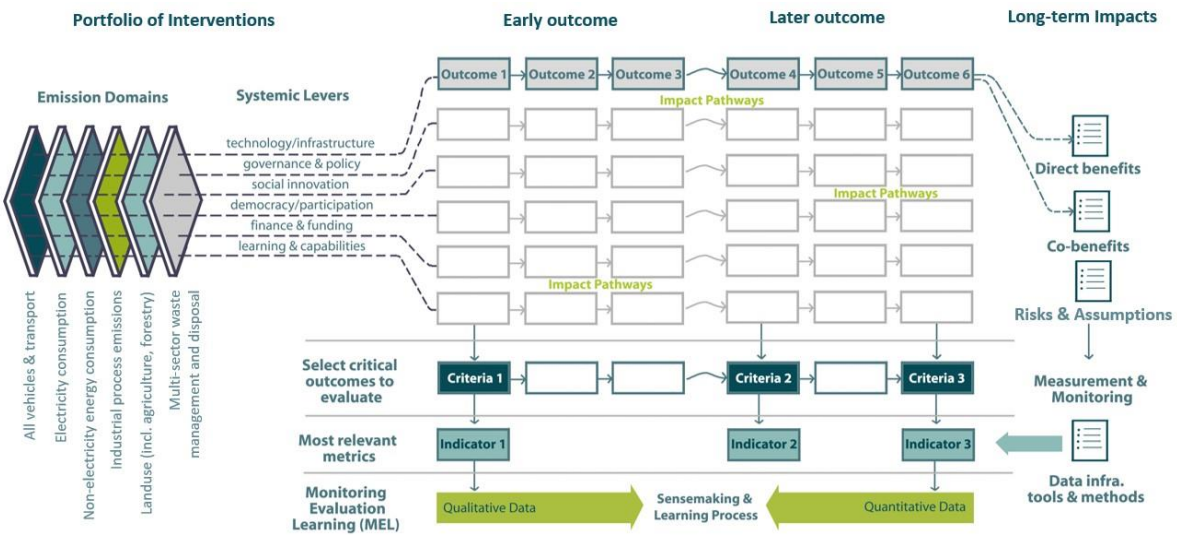

Figure 3 - NZC MEL process

Direct and Indirect Impacts are further sub-divided into two sub-categories:

- **Standardized Indicators**: to be chosen from the NZC PCP Indicator Set (45 indicators - 12 GHG Indicators and 33 Co-benefits).
- **Customized Indicators**: specific and most suited to the city's project. They can assess impacts that are not explicitly covered in the NZC PCP Indicator Set.

Identification and definition of KPIs: Let'sGOv Project level MEL Framework

a) Direct Impacts

Let'sGOv implementation will support direct impact on climate mitigation and adaptation. The governance empowerment and the consequent spread of energy communities, energy data access and the experimentation of innovative financial models will directly impact GHG emission by leveraging precise and effective interventions targeting the reduction of the energy demand and widening the access to clean and locally produced energy.

At the project development stage, Let'sGOv estimated that, within the two years, the 9MCs are expected to decrease their emission profile by an average of 7-10% due to the benefits leveraged by this project (2 years) and to accelerate the reduction of 25-30% within 4 years. As the carbon neutrality is foreseen for 2030, cities will have 8 years to accomplish this transition, meaning that, averagely speaking and deliberately disregarding the inherent dynamics of the carbon neutrality process and accomplishment and natural variations among cities, each couple of years they will need to decrease CO2eq emissions of around 25% (compared to the present consumption). Thus, a reduction of 7-10% compared with the current situation for the first 2 years seems in line with the acceleration pathway by making the reasonable assumption that Let's GOV project will enable, on average, about one third of the whole foreseen actions of the 9 MCs. Note further, that the International Energy Agency, ENEA and ISO-International Standardization Organization, estimate a decrease in CO2eq emission for actions including engagement and behavioral aspects targeting energy efficiency of around 5%, which again makes that target of a reduction of 7-10% reasonable.

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Summarizing, the direct impacts of the project on the reduction of greenhouse gas emissions will be focused on:

- The reduction in greenhouse gas emissions in the 9 MCs from total greenhouse gas emissions.
- The reduction in energy demand.

For this reason, the selected direct impact indicators for the overall project are listed in the table below.

Table 1 - Direct impact indicators for Let'sGOv

Activity or Intervention name	GHG emission Domain	Emission Sub-domain	Quantitative indicator	Metric/unit of measurement (how is this impact measured?)
Implementation of the pilot experimentations in the 9 cities; Multi-level governance Hub of Competencies; Shared activities and new internal and external collaborations	▪ All vehicles and transport (mobile energy) ▪ Consumption of electricity generated for buildings, facilities, & infrastructure ▪ Consumption of non-electricity energy for thermal uses in buildings & facilities ▪ Land use (including agriculture, forestry, and other land uses) ▪ Multi-sector waste management and disposal ▪ Industrial process emissions	Total GHG emission	Total GHG emission per year	t CO2 equivalents/ year
		Energy Consumption	Change in the total energy consumption per year	kWh/year

For the direct impacts, as defined by NZC, a long term horizon is expected for monitoring (5 years or plus). Also, due to the nature of Let'sGOv project, focused on exploring innovative governance models rather than on physical or infrastructural interventions, it would be difficult to assess the direct impacts during the project implementation. However, an estimate of these impacts in the long term, further to the improved governance in the 9 cities, can be done, evaluating these direct impacts through scenario modeling. This approach will allow us to simulate the effects on emission reduction and changes in energy consumption by 2030, thanks to the project implementation.
These estimates by 2030 will be performed after the first year of implementation (within the first reporting of the project), and again reassessed at the end of the project, in order to keep into account all project results.

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b) Indirect Impacts

Let'sGOv is predicted to generate multiple co-benefits and indirect impact in all the 9 MCs:

- ADDITIONAL CAPACITY IMPACTS AND OPERATIVITY ACROSS MULTIPLE EMISSIONS SECTORS
  Enhanced municipalities' capacity to efficiently manage and expedite the implementation of energy and climate projects and measures. This will result in increased capacity to attract financing, manage data flows, engage citizens and stakeholders as well as to adopt innovative tools and digitalization initiatives.

- SOCIAL INCLUSION, DEMOCRACY, CULTURAL IMPACTS AND KEY ACTORS' INVOLVEMENT
  The project aims to increase the social inclusion and the involvement of key actors around the theme of energy and climate transition. The effects of this action are expected to be:
  - Enhanced citizens', communities' and stakeholders' participation in the decision-making process concerning energy related issues.
  - The new agreements on energy data sharing will allow a deeper understanding of the phenomena and the possibility to implement actions to directly target energy poverty, increasing social justice (the lack of reliable data on this aspect is the major bottleneck to understanding and targeting the problem).
  - Improved functionality of public institutions and enhanced transectoral coordination;
  - Strengthen multi-level governance.

For this reason, the selected indirect impact and co-benefits indicators for the overall project, included in the MEL, are listed in the tables below.

The quantitative non-GHG long-term impacts (customized indicators):

Table 2 - Quantitative non-GHG long-term impacts (customized)

Activity or Intervention name	Impact related to this activity or intervention	Lever(s)	Custom quantitative or qualitative indicator	Custom metric/unit of measurement
Citizens and communities actively participate in energy related activities	Increased citizen participation	Democracy and participation	Number of citizens/beneficiaries participating in initiatives related to energy and climate transition in the 9MCs	Number of citizens/beneficiaries
Stabilization of collaborations and alliances with stakeholders through the cluster work and the pilot experimentation	New collaborations and alliances	Governance and policy	Number of agreements and collaborations with relevant stakeholders developed through the project	n° of protocols, pathways, collaborations, memoranda of understanding involving relevant stakeholders

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The co-benefits (standardized indicators):

Table 3 - Co-benefits (standardized)

Activity or Intervention name	Domain	Sub-domain	Quantitative or qualitative indicator	Metric/unit of measurement
Cross cities bench learning Programme	Social Inclusion, Innovation, Democracy and Cultural Impact	Capacity of the public administration	Improvement in skills and awareness	# of public officers trained through the Pilot activities

The co-benefits (customized indicators):

Table 4 - Co-benefits (customized)

Activity or Intervention name	Describe Co-benefit related to this activity or intervention	Lever(s)	Custom quantitative or qualitative indicator	Custom metric/unit of measurement
Strengthening the 9 Italian Mission-Cities network	Governance innovations in various policy issues and multiple domains	Governance and policy	New or revised plans, programmes, policies, and projects containing innovation in emission domains or climate strategies	n° of plans, programmes, policies, projects
Optimisation of policies and projects based on reliable and refined data; Multiple projects are continuously developed to support the transition; Improvement of municipality capacity to support citizens on energy	Greater social acceptance and activation of energy citizenship	Democracy and participation	Increase in initiatives/tools to support energy transition at local level	n° of new initiatives/tools to support energy transition

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A7.3 – GUIDELINES TO SUPPORT MONITORING AT NETWORK, CLUSTER AND CITY LEVEL IN THE LET'SGOV PROJECT

Summary

The following document represents the Guidelines to perform Monitoring activities in the Let'sGOv process.

Monitoring guidelines

Some guidelines could be used to support monitoring at the cluster, city and network level in the Let'sGOv project:

Define clear objectives and indicators

Clearly define the objectives of the project and the indicators that will be used to measure progress towards those objectives. These indicators should be SMART:

- Specific refers to something that is tangible, precisely defined, and can be uniquely identified. It should be clear and unambiguous and should focus on a specific outcome or result.
- Measurable refers to something that can be objectively measured in terms of its quality or quantity, using the available resources. It should be based on clear and objective criteria.
- Achievable refers to something that can be realistically accomplished with the resources available. It should consider constraints and limitations on resources while remaining feasible and realistic.
- Relevant refers to something that is pertinent or applicable to the outcome or result being measured or achieved. It should align with the project goals and priorities.
- Time-bound refers to something that is associated with a specific timeline for its achievement or measurement.

It should have a clear deadline or timeframe and should be based on a realistic and feasible schedule.

An effective monitoring framework should concentrate on a small set of key indicators that are directly related to the project's impacts, and that can be measured in a reliable and cost-effective manner. Each indicator should be relevant to define the success (or lack thereof) of the project. Indicators that are not truly relevant to defining the success or progress of the project, that are difficult to measure, or that are too expensive to measure should be avoided. It is better to use existing and well-known indicators that are already used, rather than creating new ones. Formulate the indicators in the most linear and simple way. Indicators should be defined in concise terms, rather than including too many details. The parameters must accurately measure the actual achievement of the defined goal and result. They must be formulated in a unique way, so that their measurement is not subject to variations due to discretion. Precision should also be applied to qualitative indicators when they are necessary to measure a desired change. In these cases, the criterion of precision requires defining the scale and the situation to which the qualitative parameters refer (e.g. what do evaluations such as "excellent" or "good" indicate) and/or defining specific methods for assessing such indicators.

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Define a monitoring plan

The monitoring activities should be structured in a well-defined plan. In particular, the plan should provide a clear and organized structure for project monitoring, defining in detail the actions to be carried out, the times in which they must be completed, and the critical moments where monitoring should be intensified. A well-defined monitoring plan ensures effective and systematic monitoring, enabling to anticipate potential risks or obstacles that may affect the project.

Some key steps are:

- Baseline and target definition: defining a baseline sets the starting point for the indicators. Doing so may require data, time, and resources. Target values are important to identify and quantify the objective of the project. The effort required to identify a baseline and corresponding target values is proportional to the effort that will be needed later during monitoring activities. Difficulties at this stage (due to lack of data, time, and resources) may indicate that the number of indicators is oversized in relation to the capabilities of the project. Indicators that quantify specific actions to be realized within the project typically start at zero and increase as activities are carried out. Setting a timeline for achieving target values is important. In addition to the project end date, it is suggested to delineate the progress of the project with mid-term monitoring activities and possibly additional interim stages.
- Sources: it is necessary to define the source (document or physical support) from which the data can be collected. The sources could be internal - the project "creates" the data through questionnaires, research, or its own observations - or external - publications, databases, and statistical yearbooks from regional, national, or international institutions, universities, companies, or organizations active in the sector, beneficiary organizations, other parallel projects or actions, etc. -.
  Along with the source, it is essential to do some verifications, considering the following traits:
  a. The parameters have the same definition adopted by the project and are calculated with the necessary frequency.
  b. The external source is reliable and verifiable by third parties, or there's an internal rigorous and verifiable methodology to get the data.
  c. The data are available (there's no need for agreements or subscriptions, any costs, uncontrollable factors that could affect the access).
  d. The access to the data is direct, without requiring extra steps.
- Data collecting and processing: it is important to define specific communication channels to share the data. Later, one needs to address how the data will be processed, how they will be stored (in which format and where), and the methods to access, control, update, and modify them. Given the amount of work that data collection and processing may imply, it is also important to choose the simplest options in terms of costs and time.
- Timing: determine the effort and the frequency of the reporting activities. The choice depends on the indicators, the data, the methods, the commitment they require from providers, and the available resources. The identified timeline should include ways and times to report the collected information and perform evaluation and learning activities.
- Roles: identifying responsibilities is helpful to ensure effective monitoring activities. Clarity on who is involved in the monitoring phase is an important aspect of project management, especially during times when deadlines and current activities absorb a lot of time and energy.

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Monitor progress regularly

Monitor progress towards the project objectives on a regular basis, using the defined indicators. Here is presented an overview of existing methods for data collection and processing. These methods are complementary and are typically used in various combinations to support the monitoring and evaluation activities of a project.

- Direct collection of project-related data e.g., number of participants in an event, percentage increase in activities, etc.
- Calculation of projected outcomes by the means of models.
- Documentary research and use of secondary data, which can be obtained from government documents, academic research, research and analysis by other sector operators or projects, online sources such as social media, blogs, or user conversations.
- Surveys, used to collect data from relevant project participants and/or stakeholders through online tools, telephone surveys, or paper questionnaires. Surveys can collect quantitative, qualitatively or open-ended responses.
- Interviews and conversations with a question-and-answer system that can be free-form, semi-structured (with fixed questions and answers that can range), or structured (questions with shorter or predefined answers).
- Focus groups, moderated group discussions where participants are invited to share opinions and ideas on a specific topic. It allows for deeper analysis and integration of various viewpoints.
- "Most significant change", a group where each participant is asked to describe the most significant change in their experience regarding a specific area or parameter and explain its relevance. The collected "stories" can be further selected and commented on as a group.

Adjust the monitoring framework as needed

The monitoring framework should be flexible and able to be adjusted as needed. For example, if new data becomes available or if the project objectives change, the monitoring framework should be updated accordingly.

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Monitoring indicators

In the Let'sGOv projects, there are three different layers of monitoring:

1. Direct/indirect impact monitoring
2. Early and later outcomes monitoring
3. Insights monitoring (e.g., challenges and 'aha moments' of early outcomes, barriers/risks and opportunities/possibilities of later outcomes, Risks, Progress towards milestones and deliverables/objectives, Evolution of implementation, Risks management, Communication activities, dissemination activities).

Direct and indirect impact monitoring

Direct and indirect impact monitoring is done with the aim of Key Performance Indicators (KPIs). Direct Impacts are the long-term quantified effects produced by the project activities/interventions related to the GHG mitigation/reduction in one or more emission domains for the city. Indirect Impacts or Co-benefits expected to be produced during or after the project duration (either qualitative or quantitative) because of the Pilot activities. For each indicator, its baseline and current value, the baseline year and the data source should be reported.

The full list of indicators of the project is defined as:

Table 5 - Direct/indirect impact monitoring

	Activity or Intervention name	Domain	Sub-domain/ lever(s)	Indicator	Metric/unit of measurement	Level involved	Monitoring aspects
GHG direct impacts	Implementation of the pilot experimentations in the 9 cities; Multi-level governance Hub of Competencies; Shared activities and new internal and external collaborations	▪ All vehicles and transport (mobile energy) ▪ Consumption of electricity generated for buildings, facilities, & infrastructure ▪ Consumption of non-electricity energy for thermal uses in buildings & facilities ▪ Land use (including agriculture, forestry, and other land uses) ▪ Multi-sector waste management and disposal ▪ Industrial process emissions Total GHG emission	Total GHG emissions	Total GHG emission per year	t CO2 equivalents/ year	All cities	Baseline and current indicator value, baseline year, data source
			Energy Consumption	Change in the total energy consumption per year	kWh/year		
Non-GHG direct impacts	Citizens and communities actively participate in energy related activities	Increased citizen participation	Democracy and participation	Number of citizens/beneficiaries participating in initiatives related to energy and climate transition in the 9MCs	Number of citizens/beneficiaries	All cities	Baseline and current indicator value, baseline year, data source
	Stabilization of collaborations and alliances with stakeholders through the cluster work and the pilot experimentation	New collaborations and alliances	Governance and policy	Number of agreements and collaborations with relevant stakeholders developed through the project	n° of protocols, pathways, collaborations, memoranda of understanding involving relevant stakeholders	All cities	Baseline and current indicator value, baseline year, data source

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Indirect impacts	Cross cities bench learning Programme	Social Inclusion, Innovation, Democracy and Cultural Impact	Capacity of the public administration	Improvement in skills and awareness	n° of public officers trained through the Pilot activities	All cities	
	Strengthening the 9 Italian Mission-Cities network	Governance innovations in various policy issues and multiple domains	Governance and policy	New or revised plans, programmes, policies, and projects containing innovation in emission domains or climate strategies	n° of plans, programmes, policies, projects	All cities	
	Optimisation of policies and projects based on reliable and refined data; Multiple projects are continuously developed to support the transition; Improvement of municipality capacity to support citizens on energy	Greater social acceptance and activation of energy citizenship	Democracy and participation	Increase in initiatives/tools to support energy transition at local level	n° of new initiatives/tools to support energy transition	All cities	

All the KPIs above are part of the project MEL, reviewed in 2024 before the first intermediate reporting, based on the first year of project implementation.
In fact, as foreseen by the NZC Pilot Programme, some indicators initially included in the Award Agreement are not considered relevant anymore and thus are not included in this new MEL, others are slightly modified or clarified, thanks to the lessons learnt and key insights achieved during the first year of implementation through the Sensemaking Programme. This MEL will be submitted with the first intermediate reporting of Let'sGOv project as long as the monitoring of the indicators collected by the cities, as per NZC guidelines.

Early and later outcomes monitoring

Intermediate Outcomes are the qualitative and observable changes/insights related to the process of implementing the project, produced either early (short-term) or later (medium-term) during the project timeline. Regarding the early outcomes, it is important to monitor the challenges and the 'aha' moments that the cities faced, in addition to the key learnings and the findings emerging from the project. Regarding the later outcomes, the barriers/risks and opportunities/possibilities should be monitored. The cities involved in the monitoring depend on the specific outcome considered, as some outcomes are specific for the three thematic clusters in the project, as detailed in the table. The cities should provide their impressions on the outcomes in a written form. This input will be collected during the project by the Coordinator and the Sensemaking Leads and will be then summarized in the template provided by NZC "Learning and Insights Report".

The following table shows the early and later outcomes identified in the Award Agreement, the project actors that are involved in the monitoring and the aspects to be monitored:

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Table 6 - Outcomes monitoring

	Activity or Intervention name	Description	Levers	Impact Pathway(s) (How the Outcome is logically connected to one or more activities or interventions?)	Level involved	Monitoring aspect
Early outcomes	Cross cities bench learning program	Improved knowledge on the internal and external needs and barriers	Governance and policy; Learning and capabilities	The learning program will support cities in better understanding their own and mutual needs and barriers as well as their best internal practices. This knowledge will support cities in creating new streams of collaborations both among them and with external stakeholders (also acting as a unique and meaningful network to key external stakeholders that are now difficult to reach from cities alone). This will create the baseline for acquiring more capacity to create innovative activities in the 9 cities involving key actors in multiple emission domains, creating stronger impacts.	All cities	Challenges and 'aha' moments, key learnings and findings
	Implementation of experimentations in the 9 cities (according with the three thematic clusters)	Consolidation of a set of tested solutions in test-bed sites	Technology and Infrastructure; Social Innovation, Financing and funding; Learning and capabilities	The consolidation of innovative governance solutions to be tested in the 9 cities will strengthen both cities' and mutual knowledge and increase the capacity to test innovative solutions and translate them into permanent administrative practice. The pilot testing will lead not only to a new knowledge, but also to practices of sharing with other cities and to new cascading and newly enabled innovations in the cities. The acceleration to climate transition will be boosted through the facilitation of governance procedures.	All cities	
	Data Cluster:				Data Cluster	
	creation of a cross-city thematic cluster on energy-related data	Consolidation of collaborative data systems among the cities	Technology and Infrastructure; Governance and policy	The consolidation of collaborative data sharing among the cities, due to the work in the data cluster, will increase the effectiveness in monitoring the mix of energy sources and in using these data not only at city level, but also gaining insights from the other cities data. This will also support the creation of new collaboration streams with external stakeholders and the information of better policies.	Engagement Cluster	
	Finance Cluster: Creation of a cross-city thematic cluster on innovative financing	Creation of new financing and agreements models with the credit system and with public-private partnership financing tools	Governance and policy; Financing and funding	The creation of new financing agreements models with the credit system, due to the work in the finance cluster, supports investments in R&I and in innovative projects targeting energy reduction and GHG emissions and support the creation of a stable and permanent dialogue with companies and financial system to accelerate interventions.	Finance Cluster	
Later outcomes	Acceleration of the procedures to create renewable energy production and innovative models of sharing energy and information (energy communities, one stop shops, etc)	Increased diffusion of energy communities models/protocols /collaborations and/or enhanced one stop shops models in the 9 MCs	Technology and infrastructure; Social innovation; Democracy and participation	This later outcome is directly connected with the activities of the Engagement cluster and the enabling toolkit it will create to support cities in facilitating the processes of RE diffusion, ECs and one-stop-shop development. It is linked with the consolidation of one-stop-shops (early outcome) and many long-term impacts such as the production of clean energy, the increase of RES, and the increase of social acceptance in energy-related projects and policies	Engagement Cluster	Barriers, risks, opportunities, possibilities emerged, key learnings and findings
	Improved relations with stakeholders and creation of new alliances/collaborations	Consolidation of multi-stakeholder approaches in and across cities	Governance and policy	This later outcome is directly connected with the work in the 3 clusters and the early outcomes previously identified of new agreements and relations with stakeholders. The improved relations with external stakeholders in a permanent way will support the acceleration of the transition as it will enable cascading actions and projects.	All cities	Barriers, risks, opportunities, possibilities emerged, key learnings and findings

Other insights monitoring

Regarding other insights, the different aspects listed below will be monitored. Any other insights would be encouraged, also if it is not included in the presented categories.

The following table provides a summary of all important information which will be monitored during the project; this information are collected periodically by the project coordinator through a specific template

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sent to all partners and the results are then summarized in the NZC Technical Report, which will be submitted with the periodic reporting, as per NZC guidelines.

Table 7 - Insights monitoring

Insight category	Level involved	Monitoring aspect
Risks	Network	Description (e.g., the risk concerns ...), category (e.g., governance & management, strategic, external), risk horizon (short / medium / long-term), probability (low / medium / high), priority (low / medium / high), control over risk (low / medium / high), mitigation strategy description, status (open / closed), notes
Progress	Network	Progress toward milestones and deliverables/objectives
Evolution of implementation	Network	Actual evolution of activities, adjustments and/or deviations to the original implementation plan. Forecast evolution, adjustments and/or deviations moving forward
Communication activities	Network	Relevant communication activities done, description, target audience and communication channel
Dissemination activities	Network	Description or relevant dissemination activities, exploiting outcomes and/or results

Other optional monitoring indicators

Further to the project MEL framework, presented above, and upon which the project will report to NZC, the 9 cities involved in the project will be able to select, if considered appropriate, further KPIs, related specifically to the city-level test-beds they are implementing. These are additional indicators that the cities consider useful and relevant in order to monitor the implementation at the very local level and the related success of the local initiatives, and if needed take action in order to improve or change actions during or after the project.

In the following sections the list of standardized indicators considered relevant to the pilots are suggested, took from the NZC indicators set; furthermore, other customized indicators are provided, from which the 9 cities can choose from. Cities are also free to suggest other customized indicators of interest, not included here.

The selection will be made in coordination with the WP3 leaders and all cities.

Direct Impacts

The following indicators are identified as more relevant for Let'sGOv pilots [N.B. 1. All indicators refer to the cities where the pilots are executed. 2. Each pilot should decide whether each of these indicators is relevant and applicable to their case]:

- Total greenhouse gas emissions per year – tCO2e/year
- Change in the energy mix over the lifetime of the project – %
- GHG emission from wastewater per year – tCO2e/year

Indirect Impacts or Co-benefits

Besides the co-benefits highlighted at project level and selected for the Monitoring Evaluation and Learning of the overall project (i.e. multi-city level), below are further potential indirect co-benefits that the cities may achieve through their specific test-beds implemented during Let'sGOv:

- ECONOMIC DEVELOPMENT IMPACTS
  Enhanced local economic activities and connectivity between key national players and the 9 Mission Cities (MCs). These connections also stimulate increased local entrepreneurship and the development of local businesses, thanks to the involvement of city stakeholders, associations, and grassroots initiatives in the project.

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- RESOURCE EFFICIENCY IMPACTS
  Diffusion of a culture of local resource production, auto-consumption and circular economy, also thanks to the enablement of energy communities.
- PUBLIC HEALTH & ENVIRONMENTAL IMPACTS
  Enhanced overall well-being, optimism for the future, and reduced climate, due to the improved capacity of cities to respond promptly to adverse climate events. Additionally, increased trust in the public domain contributes to this positive outlook for the future.

These indicators are considered suitable to the Let'sGOv pilots [N.B. 1. All indicators refer to the zone of interest in the cities where the pilots are executed. 2. Each pilot should decide whether each of these indicators is relevant and applicable to their case, or suggest others]:

Standardized indicators:
- Improved physical and mental wellbeing – Likert scale.
- % of city services available online – % increase of total services.
- Improved investments in climate change action – € invested over the lifetime of the pilot project.
- Public Capital Invested in Climate Action Projects – EUR thousand/million or % increase.
- Capital Attracted and Invested in Climate Action Projects from External Finance – EUR thousand/million or % increase.
- Urban waste reduction; Biowaste recovery – % of recycled domestic waste of the total domestic waste generation.

Customized indicators:
- Enhancement of digitalization within municipalities – n° of digital solutions.
- Key players-to-Government data sharing – n° of Datasets shared with the City/Local Authorities.
- Reduction of energy poverty - % of households in energy poverty.
- Perceived change in trust for municipalities (e.g., increased efficiency and transparency) – Likert scale.

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