

Rome Resilience Strategy

PREFACE

In December 2013, Rome was selected as one of the first 32 cities to be part of the 100 Resilient Cities network.

100 Resilient Cities - pioneered by The Rockefeller Foundation (100RC), is dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century. This is achieved by appointing a Chief Resilience Officer (CRO) who will lead the city's resilience efforts towards creating a Resilience Strategy, and by providing access to solutions, service providers, and resources, as well as membership of a global network of member cities who can share knowledge and learn from each other.

100RC's approach to city resilience is holistic and comprehensive, to make it possible for cities to develop their own ability to adapt and improve, in anticipation of the ever increasing number of shocks and stresses that may occur (such as earthquakes, floods, epidemics etc.).

Rome started the strategy development process on 4th of December 2013. The first phase of analysis, Phase I, concluded with the publication of a "Preliminary Resilience Assessment" (PRA) that aimed to understand the current resilience baseline of the city, through assessment of the shocks and stresses, identification of strengths and weaknesses, and analysis of the city's existing actions.

The Strategy was developed by the Administration of Rome, 100 Resilient Cities and their strategic partners. During the process, a number of diverse stakeholders were engaged, both within the Administration and externally.

The publication of the Resiliency Strategy marked the completion of Phase II of the 100RC program. The scope of this phase was to identify opportunities, priorities and initiatives to improve the resilience of the city through a consensual, inclusive and shared decision-making process, which led to defining the structure of the Resilience Strategy. The Strategy comprises 4 pillars, 16 goals and 58 actions, 9 of which are priority actions.

This Strategy will be implemented in the next cycle.





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Letters



VIRGINIA RAGGI, THE MAYOR OF ROME

Rome is an extraordinary city of history, art and culture. A city that has faced many challenges, at times successfully, and at times having to count above all on the strength of character of its citizens, who mitigated with a spirit of cohesion, the impact of negative changes.

A city that I love, and of which I am proud to be Mayor. The programmatic choice of defining a Resiliency Strategy confirms the intention of ensuring that Rome is well-structured and strong as it enters the future, helping the city overcome challenges without placing the burden squarely on the shoulder of citizens.

Thanks to the determination of our Councilors, we resumed and completed a project in which urban resilience was considered to be essential to the life of a city, making Rome more aware of its strengths and weaknesses, transforming criticalities into opportunities, and making it possible to define a strategy that will benefit all our citizens.

This Project, which is based on very clear vision of the city, took into account existing plans and strategies and placed at our disposal, as decision-makers, tools that helped to identify priorities and ensure measurable actions and a more targeted governance action.

The Resiliency Strategy will help to improve the quality of life of citizens, because the city will become stronger, more flexible and inclusive.

This project, which is shared with the 100 RC network and a very wide audience of stakeholder, has enabled us to introduce an international strategy in line with the reality of Rome, convincing us more than ever that we are on the right track when we involve all the active forces of the city to design and implement medium and long term plans and programs with great transparency.

In particular I wish to thank Rome's Chief Resilient Officer (CRO) - Mr. Franco Giampaoletti for his hard work and unfailing commitment in facing this challenge.



Letters



FRANCO GIAMPAOLETTI, CHIEF RESILIENCE OFFICER

Rome is experiencing a time of great changes. To appreciate the extent of these changes, one need only consider the global phenomena of our planet such as the changes in the demographic structure, Europe's diminishing geopolitical weight, climate change, changes of the redistribution model of economic resources and the increasingly complex phenomenon of Immigration.

Added to all these are the specific problems of our city: the fact that it is a very large region with complex governance, scarce acceptance of new ways of living and working, difficulty in accepting and introducing a culture of innovation, the enormous differences between one Municipality and another, the fact that most Roman citizens prefer to use their own transport.

In a perspective of Resilience, these problems we considered to be opportunities. The opportunity of making Rome become a city where human rights and welfare are values that come first, where it is easier to live and work; where tangible and intangible heritage acquired in past decades is not lost; and where there are strong basic cultural competencies and social relationships.

The first effect of the Resiliency Strategy was to ensure the collaboration of and between all the decision-making bodies of the city. For Rome, this was a very important first step.

The pillars and goals identified were the result of true team work and represent all the aspects and expectations of the city. Once the Strategy has been approved, the first step will be to create a Special Resilience Office, that will help to implement the Strategy without losing sight of the initial approach.

Special thanks go to the Mayor, Ms. Virginia Raggi, for the opportunity afforded to Rome and the citizens of Rome.

Thanks also go to the Resilience Team who strongly believed in and defined the Strategy.



MICHAEL BERKOWITZ, PRESIDENT OF 100RC

On behalf of 100 Resilient Cities - Pioneered by the Rockefeller Foundation (100RC), I wish to congratulate Mayor Ms. Raggi and the eternal City of Rome on the release of its first Resilience Strategy, which is also the first in the history of Italy. It is the result of a great deal of hard work and is an important milestone in Rome's journey along the path of resilience.

The city of Rome has been in the forefront of humanity's greatest transformations and changes. Today the eternal city joins the global resilience revolution and embraces the mission of redefining urban governance and how city ecosystems deliver for the people in this century.

Today cities intervene and thrive where national states can no longer reach. With this resilience strategy, Rome sends a powerful message to break the status quo and start tackling its challenges in an integrated, holistic and inclusive manner - without leaving anyone behind.

I also wish to thank Deputy Mayor Montuori, Deputy Mayor Montanari, Deputy Mayor Bergamo and our Chief Resilience Officer Franco Giampaoletti for their leadership, and the determination with which they completed the project.

This strategy will be the cornerstone of Rome's journey along the path of development and resilience in the decades ahead, as the City becomes a global influencing capital with an exceptional natural and historical-cultural heritage. Our vision is of an inclusive city whose leadership is based on solidarity, that looks into the future while holding both its past and present dear, promoting environmental sustainability, economic development, civic awareness and wellbeing.

Through 9 key priority actions - Rome will show the world what integrated and inclusive resilience looks like in areas ranging from emergency response, urban regeneration and integration of refugees, to mobility and sustainability, with the Tiber seen as the city's opportunity, while tackling inclusion and diversity through social movements and sport.

The Resilient Strategy of Rome proposes an ambitious but practical program. It includes actions in which the municipality and other partners may achieve immediate benefits, as well as other longer-term actions with a truly transformative potential. While the more ambitious actions require greater leadership and commitment, their potential is indeed great in terms of ensuring that Rome not only survives but thrives amid its challenges.

Although the real work begins now, we are indeed excited to see it unfold and look forward to our continuing relationship with Rome as it implements this Strategy and continues to embed the principles of urban resilience into the fabric of the city – that continues to be a referent for Italy and the world.





INTRODUCTION	

The global challenge of urban resilience

In a rapidly changing world, that is sometimes unpredictable, and where the phenomenon of urbanization and the growth of the urban population is rising at a constant rate, metropolitan areas will undoubtedly be more exposed to different challenges and risks, to which an appropriate response must be given. Climate change, increase in migration, ageing population, greater tourist pressure, the transformation of public management, and social inequality are new challenges that Rome – like many other global cities – must be able to deal with.

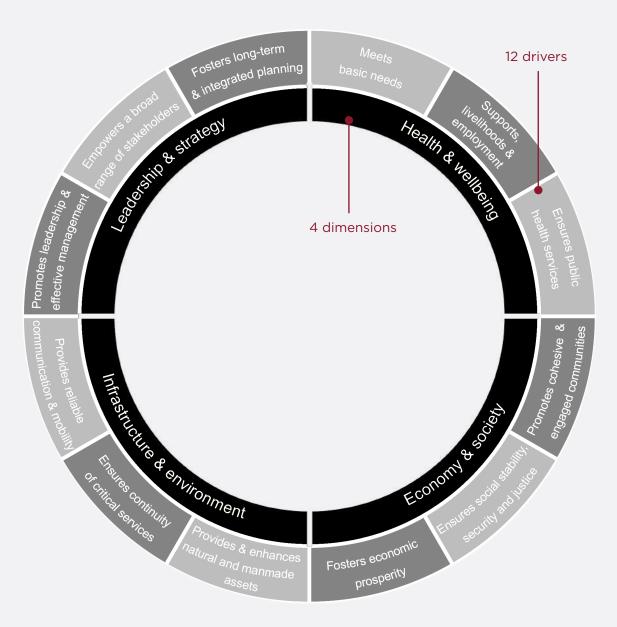
But what do we mean when we talk about a city? Cities are complex systems whose cultural, social and economic wealth is based largely on the extensive network of interdependencies between people, institutions, stakeholders, infrastructure and ecosystems. Complex urban systems may become very vulnerable to shocks and stresses if the risks and extent of the consequences are not known. It is therefore essential to identify the external factors that contribute to the transformation of the environment, just as it is important to identify the potential shocks and stresses of the city. Thanks to this awareness, a resilient city should introduce initiatives and projects which, with the cooperation of different stakeholders, enable it to deal with these challenges. In the perspective of urban resilience, cities and their metropolitan areas are not static systems. Resilience is not just to better the ability of a city to adapt to external factors, it is based on the city's ability to map its weaknesses and opportunities, launch innovative actions and radical transformations in the governance of urban services, create public policies, plan networks and systems for access to natural resources and organize the human resources that are indispensable for sustainable development.

The scope of the program is to help a number of cities all over the world to become more resilient in the face of rapidly changing environmental, climatic, social and economic challenges of the 21st century. The 100RC program supports the introduction and integration of a vision of resilience that includes not only sudden events (earthquakes, floods, epidemics, etc.) but also chronic events that weaken the fabric a city every day or cyclically (high unemployment, inefficient or expensive public transport systems, forms of endemic violence or chronic food and water shortages, etc.). By mitigating the sudden and chronic events, a city may improve its ability to respond effectively and provide better basic services to the population.

Resilient Cities

What is resilience?

100RC defines urban resilience as "the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience."



Shocks and stresses

Cities are the main centers of economic activities, social connection, opportunity and innovation. The ability of a city to function is often undermined by acute shock- such as earthquakes, fire, flooding, storms and extreme rainfall, terrorism, heat waves etc.- and chronic stress - lack of economically accessible housing, poor air quality, a high unemployment rate, demographic changes etc. Unexpected shock or stress situations that accumulate may lead to social unrest, the collapse of infrastructure or even the economic decline of a city. Shock and stress situations may however, bring new growth opportunities to tackle these new challenges.

Characteristics of resilient systems

Resilient systems possess 7 qualities that enable them to withstand, respond to and adapt more readily to shocks and stress by taking appropriate or prompt action. A resilient system is: reflective, resourceful, inclusive, integrated, robust, redundant, flexible.

Reflective

Using past experiences to inform Well-conceived, constructed future decisions.

Resourceful

Recognizing alternative ways to use resources.

Inclusive

Wide-ranging consultation and sharing in decisionmaking processes.

Integrated

Bring together a range of distinct systems and institutions.

Robust

and managed systems.

Redundant

Spare capacity purposively created to accommodate disruption.

Flexible

Willingness, ability to adopt alternative strategies in response to changing circumstances.

Rome and 100RC

As part of its participation in the 100 Resilient Cities network, Rome has promoted the Resilient Rome program in order to develop a Resilience Strategy that tackles the challenges the city faces today and in the future, with an innovative, comprehensive and inclusive approach that involves a large number of stakeholders.

The extensive and qualified participation of the different stakeholders of the city allowed Rome to have its first urban Resilience Strategy. The role of the global 100RC network is of fundamental importance; it provided Rome access to organizational and financial resources for the development and implementation of the Strategy, as well as to the know-how, sharing and cooperation opportunities with the other 99 cities in the network. The network also provides access to dozens of non-governmental organizations, research institutes and enterprises that have for years been engaged in the challenges of urban resilience and are today part of the 100 Resilient Cities.

For Rome, participation in the network also represented the opportunity to create strong synergies with other strategic urban resilience programs and initiatives currently being implemented, such as the SMR-Smart Mature Resilience – financed under the Horizon 2020 program, and the RURAL-Resilient Urban Agriculture and Landscape under the Urbact European program.



Round 1 O

Bangkok, Berkeley, Boulder, Bristol, Byblos, Christchurch, Da Nang, Dakar, Durban, El Paso, Glasgow, Los Angeles, Mandalay, Medellin, Melbourne, Mexico City, New Orleans, New York City, Norfork, Oakland, Porto Alegre, Quito, Ramallah, Rio de Janeiro, Rome, Rotterdam, San Francisco, Semarang, Surat, Vejle.

Round 2 ⊙

Accra, Amman, Athens, Barcelona, Belgrade, Bengaluru, Boston, Cali, Chennai, Chicago, Dallas, Deyang, Huangshi, Juárez, Kigali, Lisbon, London, Milan, Montreal, Paris, Pittsburgh, San Juan, Santa Fe, Santiago de los Caballeros, Santiago Metropolitan Region, Singapore, St. Louis, Sydney, Thessaloniki, Toyama, Tulsa, Wellington City.

Round 3 •

Addis Ababa, Atlanta, Belfast, Buenos Aires, Calgary, Can Tho, Cape Town, Colima, Guadalajara (Metro), Haiyan, Honolulu, Jaipur, Jakarta, Kyoto, Lagos, Louisville, Luxor, Greater Manchester, Melaka, Greater Miami and the Beaches, Minneapolis, Montevideo, Nairobi, Nashville, Panama City, Paynesville, Pune, Salvador, Seattle, Seoul, Tbilisi, Tel Aviv, The Hague, Toronto, Washington DC, Yiwu.

Rome's strategy

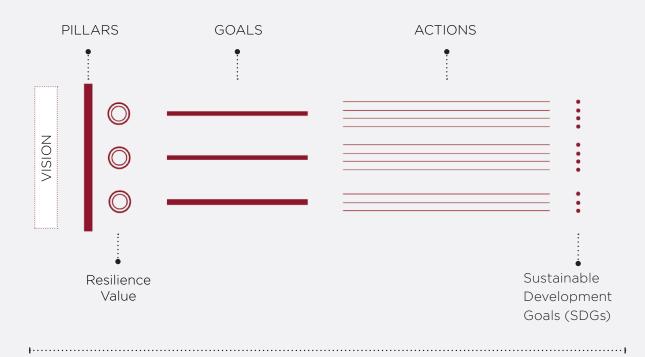
The Strategy defines the vision for a Resilient Rome and identifies a series of pillars, goals and actions.

In phase 1, the city engaged a large number of entities to identify the shocks and stresses and the main strengths and weaknesses of the city. Phase 1 concluded with a Preliminary Resilience Assessment that identified the city's main focus areas.

During the political transition period that has affected the city, a phase has been initiated defined as Resilience Liason during which the Working Team, together with 100RC and the Strategy Partner, who supported the city in the development of the Resilience Strategy, continued the analysis of the city's resilience building actions using a suite of tailored tools. The results were presented in July 2016 at a workshop held by the Departments and Affiliated Companies of Rome.

In September 2017 a new Chief Resilience Officer was appointed, and Phase 2 kicked off, concluding with a series of pillars, goals and actions that make up the strategy.

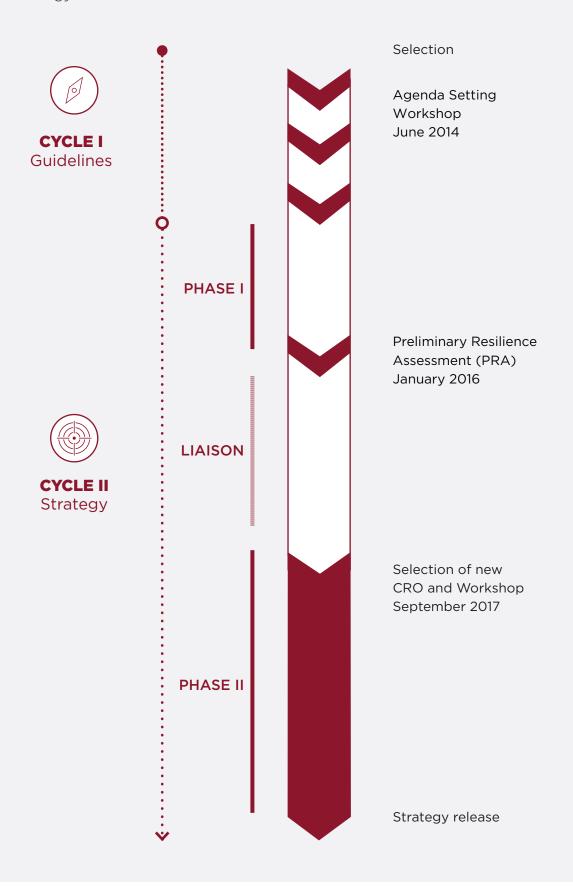
Rome's Resilience Strategy is made up of 4 pillars, 16 goals and 58 actions that were mapped against the Sustainable Development Goals (SDGs) defined by the United Nations. A number of priority actions were defined for each pillar; for pillars 1, 3 and 4, 2 priority actions were defined for each; for pillar 2, 3 were defined. These priority actions will be fundamental for the implementation phase of the strategy.



Structure of the Strategy from vision to Actions

The process

The diagram shows the process undertaken by the city to develop the Resilience Strategy.

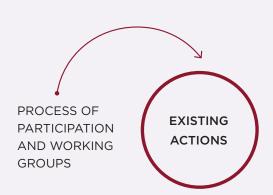


Field of opportunities assessment



AGENDA SETTING WORKSHOP

06/2014

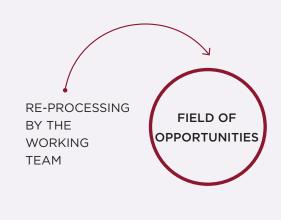


PHASE I



PRELIMINARY RESILIENCE ASSESSMENT

01/2016



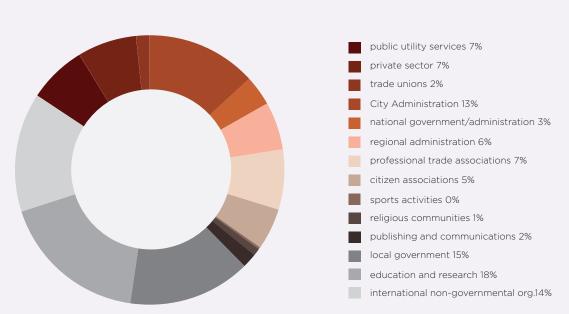
LIAISON

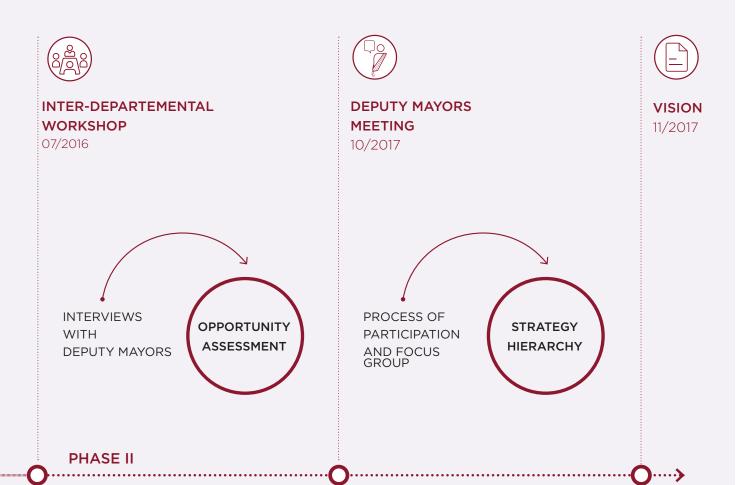
Stakeholders engaged for the Preliminary Resilience Assessment

days of meetings and workshops for the Urban Planning Conferences of the Municipal Districts

2k

people attended the urban planning conferences of the Municipal Districts





In Phase 1 of the process, as a whole, the city engaged over 2,000 stakeholders in surveys, workshops, public events and working groups. The Preliminary Resilience Assessment, drawn up at the end of Phase 1, identified 6 Discovery Areas.

After the "Resilience Liaison" Phase, a 1-day inter-agency workshop was held with all the Departments of the Rome Administration which reintroduced an environment of collaboration and sharing. The potential opportunities were indeed defined, starting again from the existing actions and survey areas.

After the establishment of the new City Government in September 2017, Franco Giampaoletti was appointed as the new Chief Resilience Officer. This marked the start of Phase 2 during which close relationships with the new deputy mayors and their Staff, and once again with the Departments of the City of Rome, were created. Interviews were carried out to update the opportunities identified, and aligning it with the political agenda of the Mayor.

The team once again analysed and prioritised the opportunities using the resilience lens prioritisation tool to develop a hierarchy of pillars, goals and actions. The hierarchy was defined after holding a special meeting with 100RC, the Strategic Partner, the Resilience Team and-deputy mayors involved in the project.

ROMA

AN INCLUSIVE AND SUPPORTIVE CITY WITH AN EXCEPTIONAL NATURAL, HISTORIC AND CULTURAL HERITAGE THAT INTENDS TO SAFEGUARD ITS PAST, PRESENT AND FUTURE BY **PROMOTING ENVIRONMENTAL** SUSTAINABILITY, ECONOMIC DEVELOPMENT, **PUBLIC SPIRIT AND** WELL-BEING.



RESILIENT ROME	

Is Rome a resilient city?

Since ancient times, Rome's development has been characterized by the morphological structure of its landscape, the geological substrate, the volcanic origin of most of the soils and the environmental system. The Tiber Valley leads to the sea via a large drainage basin that draws in the sea breeze that creates a mild climate.

These characteristics have always influenced Rome's urban growth, and have been key to a variety of transformations, even when they are not directly linked to the environment; from the beginning of the modern era, to relationships between political power, patronage, architecture and the development of the visual arts. This growth has maintained a balance between the urban and natural landscapes which is unique in Europe. This balanced growth has been studied extensively over the centuries, becoming a point of reference to develop many European capitals. In particular, the relationship with the river is one of the more complex aspects of the city, until the creation of the great walls in the late nineteenth century.

Is Rome a resilient city? Rome, like other cities, has, in its time, needed to reconcile the need to live whilst also allowing its spaces to exist within the morphology and characteristics of the land and natural resources. There hasn't always been a good balance between these demands, above all in the last century. The rapid changes of contemporary society have created new requirements. The city now urgently needs to introduce radical changes to meet the need for services and resolve problems caused by a growing population, new lifestyles and new ways of communicating and dealing with problems. These factors demonstrate that one of the characteristics specific to Rome is the need to develop policies that address today's challenges by taking into account its history as a complex and fundamental aspect of the transformations that are required. Today Rome intends to introduce all the necessary tools to understand the opportunities and resources that are available to better respond to shocks and situations of stress that occur in the city.

The city intends to build its resilience in responding to the economic, social and environmental challenges of its time, whilst continuing to chart a course that will allow the Capital to be at the same level and "working as a system" with all the biggest European capitals and metropolises of the 21st century, all whilst respecting Rome's truly unique nature. A uniqueness that must be protected even in the face of the challenges that these changes require. Rome is ready.

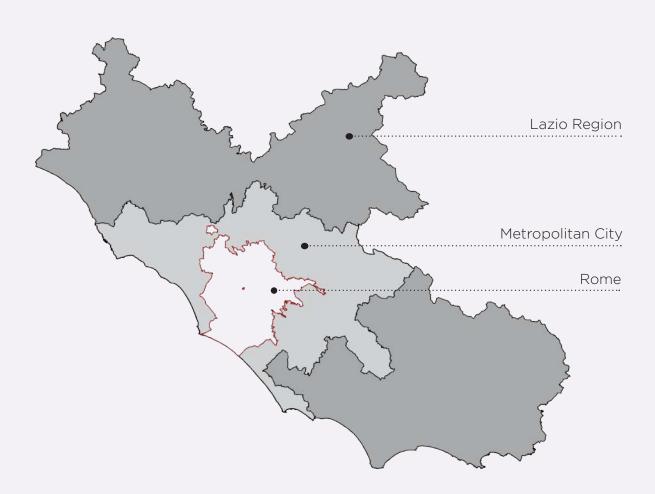
Urban context

The Metropolitan City of Rome was established in 2015 and its extent corresponds to that of the former Rome Province. It is one of 14 metropolitan cities established following law no. 56 of 7th April 2014. Today, the Metropolitan City of Rome is the most densely populated city in Italy, with approximately 4,357,041 inhabitants.

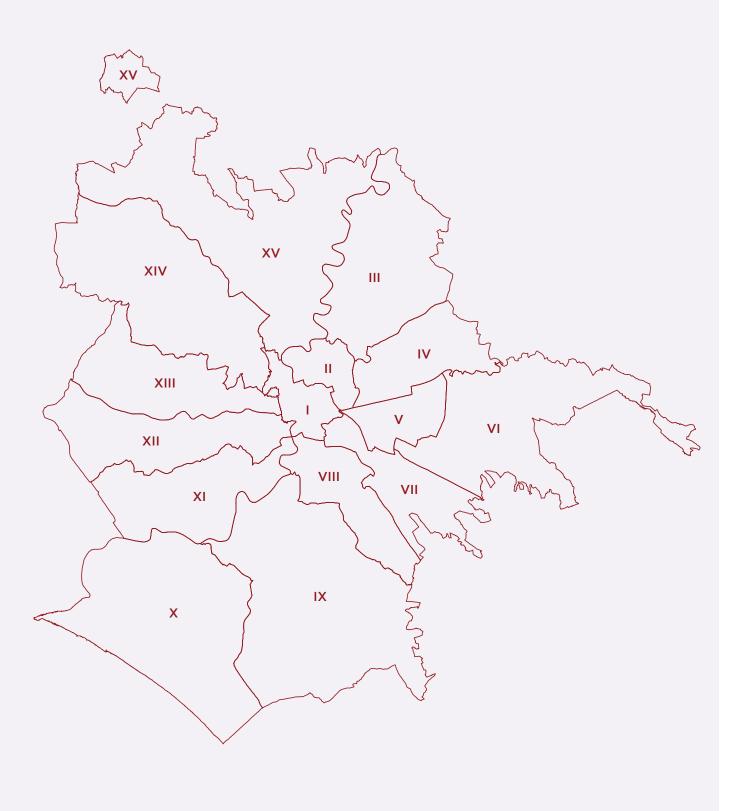
Rome is, on the other hand, the special territorial authority with special autonomy established on 3rd October 2010, and that administers the region of Rome. The boundaries consist of the border of Rome's municipality.

The city is divided into 15 administrative areas named Municipal Districts. The 19 Municipal Districts were reduced to following the resolution of Rome's Assembly of 11/2013, that introduced the re-planning and reorganization of the Municipal Districts to ensure greater economic sustainability.

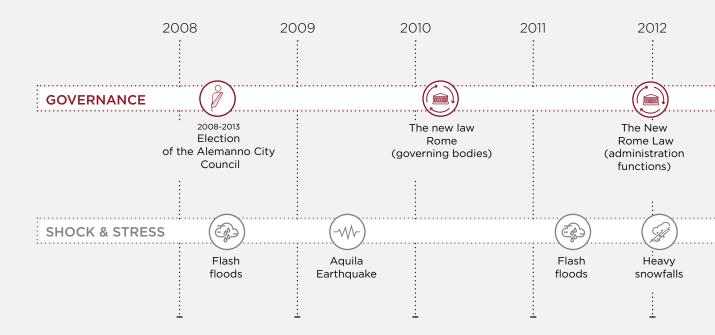
The territorial Government levels



Rome and its Municipal Districts



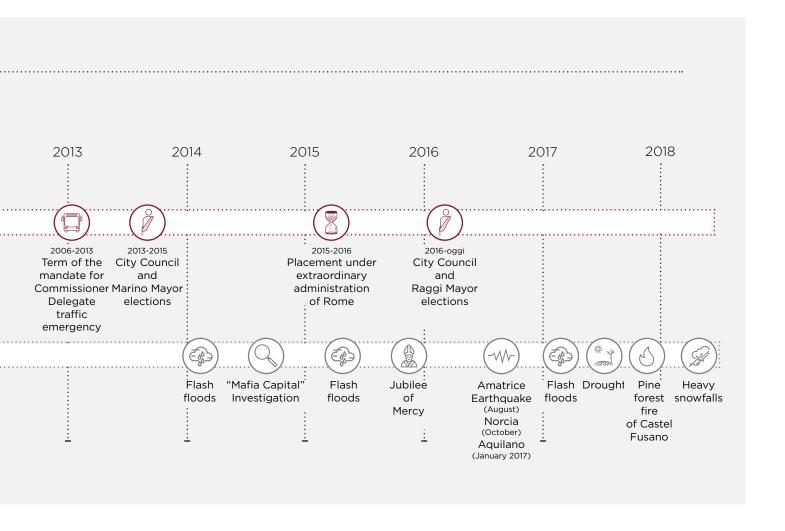
The last ten years in Rome



The information gathered on the recent phenomena that have affected the City of Rome confirm the intrinsic qualities and challenges that the city today and in the future will need to resolve. The Preliminary Resilience Assessment was fundamentally important to describe the context of the city and the perceptions of stakeholders, cross-checking these with the drivers of the City Resilience Framework.

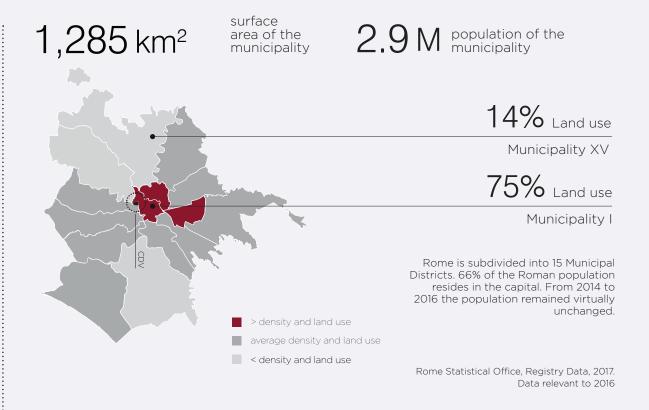
The data and the main themes relevant to the city that define its resilience profile are described in the following section: these give a clear overarching vision of the city today in terms of its demographic, social, economic and transport aspects, the landscape, historical, cultural and environmental characteristics.

The picture that emerges is that of a complex city: statistics show an aging population and an increase in migration; from an economic point of view, there are many challenges to face, from tourism to culture and craftsmanship; the city's infrastructure systems pay the price of being part of an ancient structure and often struggle to meet the requirements of the population. This applies above all to the mobility and transport sector, but also, for example, to waste treatment. Rome's unique value is its cultural heritage, which is of inestimable value, and includes buildings, landscapes and open spaces.



All of these themes face challenges such as environmental risks and climate change. Finally, one of the aspects that emerged from the stakeholders' perceptions assessment in the participatory process of Phase 1 is the inefficiency and complexity of bureaucratic procedures.

The results of the assessment are described in the following pages, with a photograph of Rome . This will be followed by a summary of the main shocks and stresses that affect the systems and assets of the city, and consequently the challenges it faces in the future.



$2.3 \, M$

PRIVATE VEHICLES

The number of vehicles continues to grow, and in 2016 the number of vehicles reached 2,3 million. The motorization rate of the vehicle fleet as a whole in 2016 was 814 vehicles per 1,000 inhabitants (612 cars).

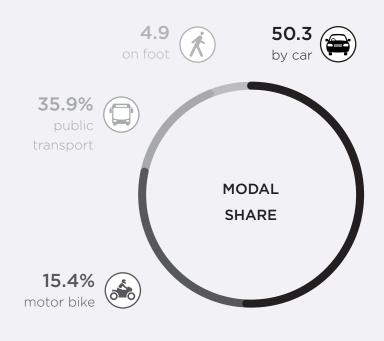
ACI-self-portrait 2017 - data for 2016

60 km

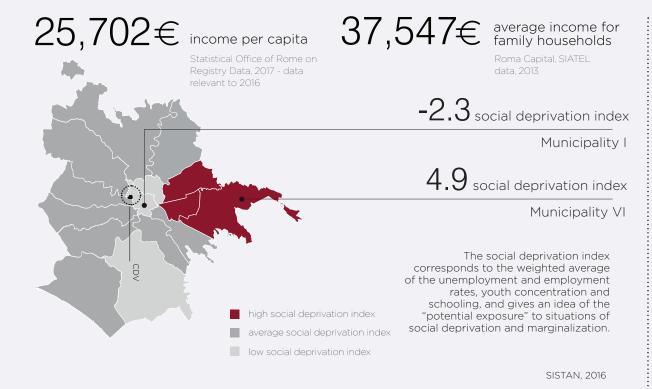
UNDERGROUND LINES

The railway network consists of 3 underground lines equal to a total of around 60 km, three railway lines known as the "concession" lines (Rome-Lido, Rome-Giardinetti and Rome-Viterbo) for a total of approximately 130 km, and finally the 8 regional railway lines (as from 2012 known as FL "Lazio railway") equal to a total of 732 km.

RFI - ATAC, 2016



PUMS, 2017



64 % natural capital in the municipality

827 km²

surface area of natural capital



315,93 trees

130,395 on the road



19 protected areas

32% of the municipal area



1.300 wild plant species

20% of the flora in Italy

GREEN / City



1,285 km² Municipal Districts surface area

> Rome Statistical Office, Registry Data, 2017. Data relevant to 2016

CULTURAL HERITAGE

TOURISM AND THE DIGITAL ENVIRONMENT

15 km²

HISTORIC CENTER

The historic center of Rome, an area of 32 km² bound by the Aurelian walls, and the extra-territorial properties of the Holy See in the city and St. Paul's Cathedral outside the walls, has been in the Unesco list of World Heritage Sites since 1980.

Rome Statistical Office, Registry Data, 2017.

Data relevant to 2016

>25,000

SINGLE MONUMENTS

In Rome there are more than 25,000 points of historical, artistic and archaeological interest, undoubtedly an unequalled record.

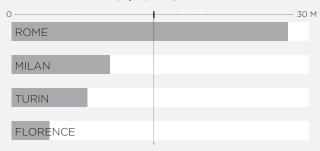
M. Cutrufo, 2010

VISITORS TO MUSEUMS, MONUMENTS, ARCHAELOGICAL AREAS 2012-2015 (+19%) Rome Statistical Office, Registry 2017 -

data relevant to 2016



URBAN GREEN SPACES OF HISTORICAL, ARTISTIC AND CULTURAL VALUE (sq m) | Istat, 2014



2.8

AVERAGE STAY

The data on tourist arrivals show that the average stay of tourists is below that of other metropolitan cities. The city where tourists stay the longest is Venice with an average stay of 4.1 days, followed by Naples with an average stay of 3.9 days.

SISTAN, 2016

22%

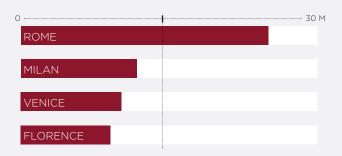
PEOPLE WHO HAVE NEVER USED THE INTERNET

Over 380,000 users are registered on the institutional portal and use the digital services of Rome. Although the level of digitization is higher than the Italian average, it is in any case well behind the rest of Europe.

Rome Digital Agenda, 2017

TOURISM-2015 TOURIST FIGURES

Istat. 201



INTERNET USERS Eurostat, 2016



31°C

HEAT ISLANDS

A study carried out by the Institute of Biometeorology of the National Research Council confirmed the high risk generated by heat islands amongst vulnerable groups in the population. In Rome the highest risk is recorded in the summer months when the ground temperatures reaches 31°C.

CNR. 2015

>250,000

PEOPLE AT RISK OF FLOODS

More than 250,000 citizens live in areas where there is a high risk of flooding, one of the highest in Europe. The areas with the highest risk are those at the mouth of the River Tiber near the historic reclamation area of Ostia and Fiumicino, as well as many urban areas like Torrino, Statuario, Tor Sapienza and Prima Porta.

River Basin Authority, 2017

RAINFALL AVERAGE

-52 %

in 2017 rainfalls decreased with respect to the historical averages



Coldiretti, 2017

DROUGHT

In 2017, Lazio suffered a very serious drought in the countryside that caused damages equal to 200 million Euro, including investments for sowing, extra costs for diesel fuel or electricity for irrigation, lost direct production of fodder for breeding farms, loss of revenue for fruit and vegetable farms and loss of production in the wine and oil sectors.

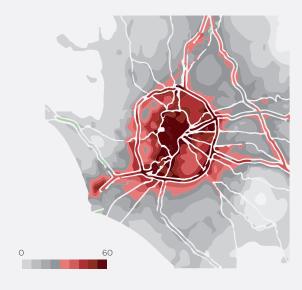
Statistical Office of Rome, Registry Data, 2017 data relevant to 2016

AIR POLLUTION

The spatial distribution of nitrogen dioxide (NO_2), shown on the maps, and which is currently one of the most critical pollutants, shows that higher levels are in densely urbanized areas, especially the Central-Eastern sectors of the city and those close to the roadways.

ENVIRONMENTAL POLLUTION

Environmental pollution in Rome, other than air (soil, subsoil, surficial and groundwater), is similar to other big global metropolises. Given the presence of more or less extensive industrial plants that may have a negative impact on the urban environment, there are many cases of illegal dumping of rubbish, but also accidental or malicious spilling of pollutants that may affect the soil, subsoil, the local aquifers and surface water bodies where the main factor of environmental pressure are.



Nitrogen dioxide ($\mathrm{NO_2}$): Annual average 2016 Spatial distribution of the annual average of $\mathrm{NO_2}$ in 2016 on the local modelling simulation domain (1 km x 1 km).

Arpa Lazio, 2016

Resilience challenges

SHOCKS & STRESSES

The Preliminary Resilience Assessment shows the strengths and weaknesses of the city. The figure below show the main shocks and stresses as perceived by the stakeholders:

Lack of integrated and updated planning

Insufficient communications and information shared by offices

Slow and inefficient bureaucracy

Limited access to broadband telecommunications

Air, water and soil pollution

Critical issues in the urban solid waste cycle

Loss of ecosystem services

Degradation of a part of the areas and public buildings

Lack of public spirit

Aged infrastructure

A high level of commuting

Inadequate public transportation system

Limited redundancy and continuity of services and critical

infrastructure

Increase in the number of arrivals of migrants with the right to

asylum

S

Impoverishment of the population

Housing emergency

Tourist pressure

Earthquakes

Sinkholes

Landslides

Flash floods

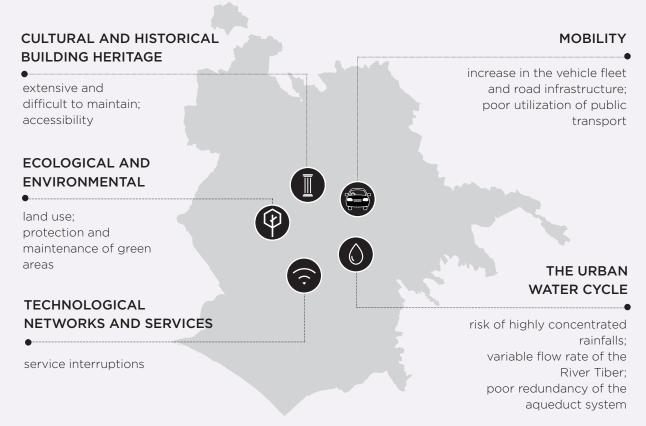
River floods

Flooding due to bad surface water runoff

MAIN SHOCKS

THE CRITICAL ASSETS OF THE CITY

Main assets were identified in Phase 1:



THE MAIN CHALLENGES

The main assets identified as vulnerable to the shocks and stresses:

ECONOMIC RECESSION AND INTEGRATED GOVERNANCE **VULNERABILITY OF THE POPULATION** Supporting efficient and effective governance of the city by encouraging Effective management better communications and of the impact that transparent information as the global economic a result of the use of digital recession has had on media and overcoming the employment, on social limits caused by slow red networks, on vulnerable tape procedures. groups, and on increased migration trends. THE QUALITY OF LIFE Encouraging well-being and the quality of urban life of citizens: from access to housing to the efficiency of public transport; from cultural projects to improving differentiation and recycling of postconsumption materials. LAND SAFETY AND MAINTENANCE OF THE Citv'S CLIMATE CHANGE

Monitoring and planning to secure the region against geologic problems (earthquakes, opening of sinkholes, subsoil pollution, geological instability) and predicting and mitigating the impacts of climate change (heat islands, drought, floods, landslide, etc.).

Protection, preservation and valorization of the ecological, cultural and landscape heritage of the city, by encouraging sustainable tourism, and urban regeneration processes.

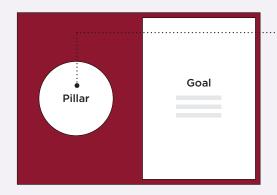
HERITAGE





STR	ATEGY	

How to read the strategy



PILLAR (I,II,III,IV)

The pillar indicates the strategic direction of the city.

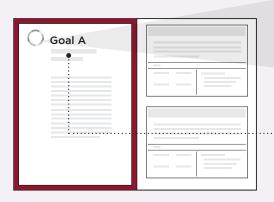


PRIORITY ACTION

The priority action is the main strategic action of each pillar.

FOCUS

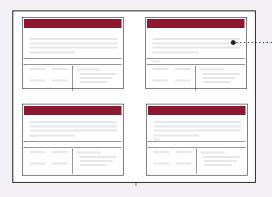
These represent best practices from other cities.





..... GOAL (A, B, C, ...)

Each goal is mapped against the resilience quality, shocks and stresses, and the CRF drivers



ACTION

The actions represent the initiatives and projects that will help the city meet the goal.

Title of action:

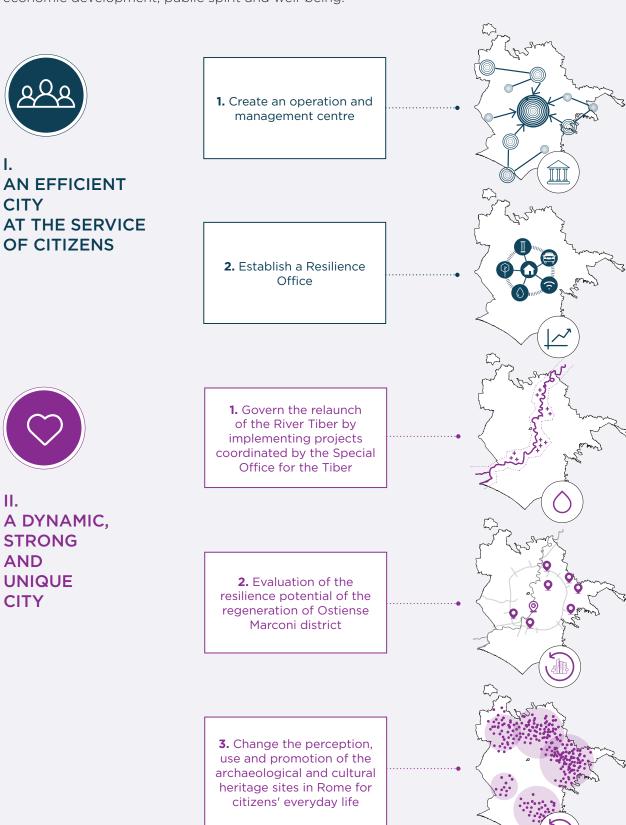
 $I.A.1 = pillar \left(I,II,III,IV\right) + goal \left(A,B,C,...\right) + action \left(1,2,3,4,....\right)$

SDGs:

Each action responds to some of the Sustainable Developments Goals identified by the United Nations (see page 143).

The 4 Pillars and Priority Actions

An inclusive and supportive city with an exceptional natural, historic and cultural heritage that intends to safeguard its past, present and future by promoting environmental sustainability, economic development, public spirit and well-being.



.....



III.
AN OPEN,
INCLUSIVE
AND
SUPPORTIVE
CITY

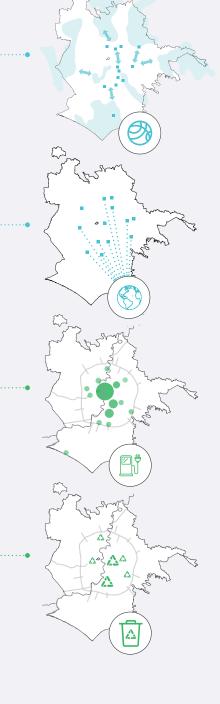
1. Implement a program to encourage everyone into sports to enable social integration of diverse communities

2. Implement the new social integration program for asylum seekers and other people covered by international protection

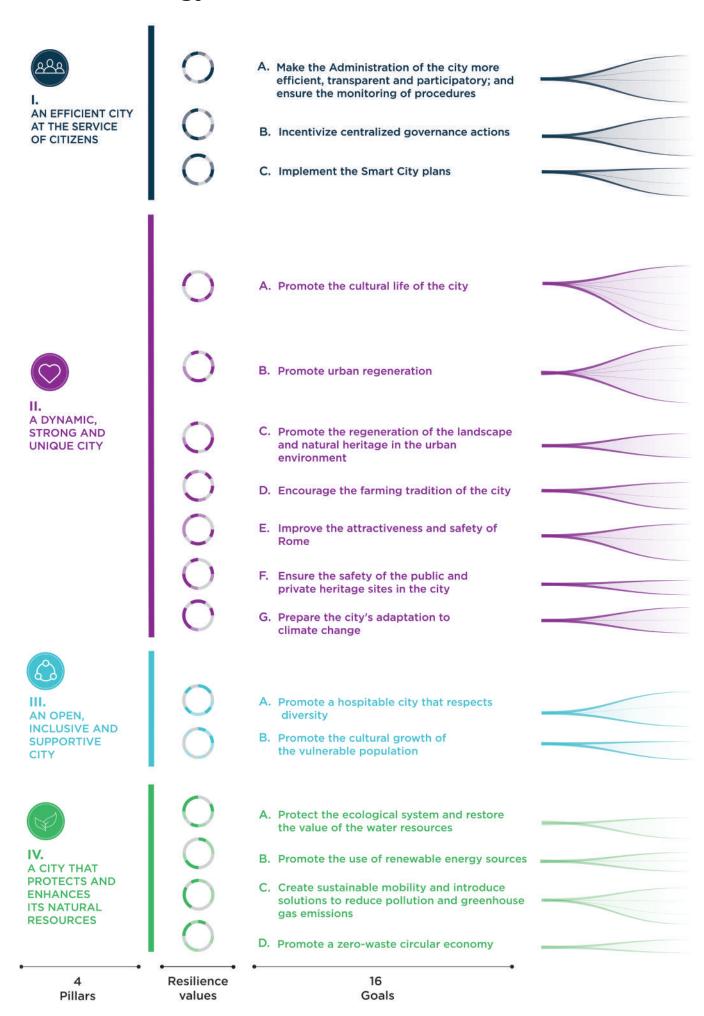


IV.
A CITY
THAT PROTECTS
AND
ENHANCES ITS
NATURAL
RESOURCES

2. Optimize separate waste collection of post-consumer materials



Rome's strategy structure



	PA.1 Create an operation and emergency management centre———————————————————————————————————	3 17	11	15	
1. Link the budget commitments to the three-year annual programming of the Departments' activities ————————————————————————————————————			16 17		
	3. Create a unique communications interface between private citizens and the Public Administration with the help of new technologies—			16	
	new technologies ————————————————————————————————————			16	
١.	2. Create a unique geographical database, that may be updated and shared 3. Establish a Geological Survey of Rome to unite the governance of the urban subsoil		17		
3	Establish a Geological Survey of Rome to unite the governance of the urban subsoil	9 9	15	17	
1.	Introduce guidelines for updating the Open Data platform	9	11		
3	. Upgrade the public Wi-Fi network and coverage	9	11 11		
	PA.1 Govern the relaunch of the River Tiber by implementing projects coordinated by the Special Office for the Tiber PA.2 Evaluation of the resilience potential of the regeneration of Ostiense Marconi district PA.3 Change the perception, use and promotion of the archaeological and cultural heritage sites in Rome	3	6 9	7 10	9 11
	for citizens' everyday life	3	4	9	11
1. 2.	Reorganize the management of the cultural sector — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer — Support stakeholders in the contemporary cultural sector in the cult	4	11		
3.	Organize seasonal programs of cultural events throughout the city	4	11	10	
5.	 4. Assign a new role to public libraries by organizing innovative socio-cultural programs for the local communities 5. Start the application to list Ostia Antica as a UNESCO World Heritage Site 6. Eashion Relayarch Plan of Rome 		5	10	11
	Tashion Relation Flat of North	8	9		
1.	Activate Fabbrica Roma (Rome Factory), a regeneration plan for abandoned public buildings ————————————————————————————————————	9 11	12	17	
3.	Upgrade the Building Regulations according to new housing and working needs— Regenerate the Tiburtina Station and Pietralata areas———————————————————————————————————	3	9	10	11
4.	Reorganize the network of public and private transportation to streamline the mobility system (tram lines, bus lanes, cable cars, etc.)	9	11	12	13
5.	Establish incentives to facilitate the transfer of know-how between small-medium businesses, start-ups, institutions and research centers	8	9		
1.	Restore and/or reorganize the use of and access to the Roman coast by implementing the Utilization Plan for Rome's Coastline	8	11	15	
2.	Implement the management reorganization of parks and historic villas by establishing a Curator who would also be responsible for planning the fundraising processes	3	8	15	
1	Relaunch farming companies managed by Rome	3	8	12	15
2.	Develop new markets for farmers to support the direct sale of produce and products to consumers————————————————————————————————————	8	12	-	10
3.	Increase food forests and urban vegetable gardens ————————————————————————————————————	3	11	15	
	Create tourist facilities to promote youth and student tourism Plan activities to promote the attraction of urban areas by increasing the number of cycling tracks, environmental	10	11		
	islands and use of the public transport system Regulate businesses in the historic center to protect the quality of products and craftsmanship and to preserve the identity and the propriety of the historic center	3	11 12	12	13
1.	Protect infrastructure, public buildings, and schools	4	11	13	
1	Create green and blue infrastructure to reduce urban heat islands ————————————————————————————————————		13		
3.	Assess the impacts of climate change and raise awareness among citizens ————————————————————————————————————	11 11	13 13		
	PA.1 Implement a program to encourage everyone into sports in order to start a process of social integration of diverse communities	3	10		
	PA.2 Implement the new social integration program for asylum seekers and other people covered by international protection	3	10		
1.	Implement a program to strengthen and extend the support network for vulnerable communities	1	10		
2.	Establish assessment criteria to assign public spaces under concession to NGOs, associations and organizations that promote social inclusion, education and sustainability	4	10	11	
	Finalize the Public Housing Development Programs and develop new energy-efficient social housing ——————	1	10		
	Introduce projects for the inclusion of children in the cultural life of the city in collaboration with other institutions Implement the new intervention policies for unaccompanied foreign minors to facilitate opportunities of growth and integration	4	5	10	
	PA.1 Renew the public vehicle fleet and introduce eco-sustainable buses	7	13		
	PA.2 Optimize separate waste collection of post-consumer materials	11	12		
	Implement sustainable urban forestry principles to protect biodiversity, enhance and protect parks and nature reserves	3	15		
	Protect and enhance local water resources	4	11	14	
1. 2.	Incentivize the use of renewable resources Introduce incentives to secure the safety and energy efficiency of private real estate property Review the green credentials and safety of the public structures	7 7	13 13		
		7	9	11	
1. 2.	Develop an efficient and economic transport model for people and goods ———————————————————————————————————	9 7	13 13		
3.	Develop an efficient and economic transport model for people and goods Develop sustainable electric mobility plan Test new technologies for decreasing emissions into the atmosphere Develop the pedestrian and cycle network and sharing transport schemes	3	9	11	13
1.	Open centers for the direct processing and reuse of post-consumer materials	3 9	12 12	13	
2.	Open centers for the direct processing and reuse of post-consumer materials Develop sustainable waste plants	9	12		



GOAL:

A. MAKE THE ADMINISTRATION
OF THE CITY MORE EFFICIENT,
TRANSPARENT AND PARTICIPATORY;
AND ENSURE THE MONITORING OF
PROCEDURES

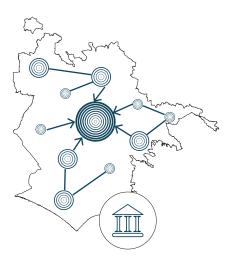
B. INCENTIVIZE CENTRALIZED GOVERNANCE ACTIONS

C. IMPLEMENT THE SMART CITY PLANS

PRIORITY ACTION 1:

Create an operation and management centre





The long-term goal is to achieve a Single Operations Center that permanently brings together all the stakeholders of the City Government (representatives of different Departments, agencies and service companies). The system includes the creation of a powerful technological infrastructure to manage and integrate all the data and information of traffic, mobility, transport, weather and supervision cameras in real time. The first step to complete this action will be the implementation of an integrated risks and emergencies management system. This will include a centralized territorial information technology system for management of risks (earthquake risks, hydrological instability, gravitational instability, fire, extreme climatic events etc.) and emergencies monitored by Rome Civil Protection. The system will also include the coordination of the operational procedures of planning, prevention, intervention and interactive communications with citizens.

Department in Charge: Head Office

Partner: Civil protection, Local Police, Departments of Rome, Agencies

Investee companies, External entities

Status: To date a number of meetings have been held with the Civil Protection in order to assess and define the scope of the Central Office. It is now necessary to establish a work group to develop an initial feasibility study in order to assess the project from a regulatory, administrative and economic point of view.

Period: Long-term

- Simplifies the integrated management of events in ordinary and emergency situations
- Ensures real-time interaction between the stakeholders involved in the management of the city services
- Ensures integrated monitoring of city life variables (mobility, networks, services, security, major events and natural disasters)
- · Ensures that solutions are resolved rapidly, and helps the decision-making process
- Ensures interactive communications with citizens through big data and social media



FOCUS

Centro de Operações

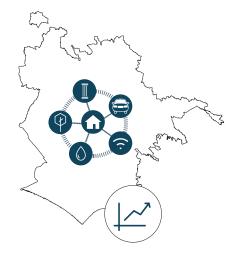
Rio de Janeiro, Brazil



The Rio de Janeiro operations center was opened in December 2010, incorporating the permanent Office of Sustainability and Resilience and integrating the data and monitoring of about 30 municipal and State agencies and related utilities. The Center optimizes the functioning of the city, above all in the case of large-scale events, and responds promptly to emergencies. The creation of the Center formalized the office of the Chief Resilient Officer (CRO), also known as Resilient Rio, allocating a key role to the office of the CRO in the governance of the city and opening the doors to resilience as a priority and trans-departmental matter. With over 400 employees, the Center is open 24 hours a day, 7 days a week, and works to improve the efficiency, safety and effectiveness of the competent agencies. Although the Center primarily monitors emergencies, it also works on inter-departmental projects and has specific expertise on waste disposal, water, sewage, energy, urban planning, public works, lighting, etc.

PRIORITY ACTION 2:

Establish a Resilience Office





The Resilience Office will be formally established and institutionalized for the implementation of this strategy. The Office, together with the stakeholders, will undertake the following: ensure the feasibility of the actions, monitor the implementation of the strategy, encourage a culture of resilience within citizens, schools and the administration of Rome, encourage the creation of a network of people and stakeholders active in the field of urban resilience, and identify European funding to expand the resilience agenda.

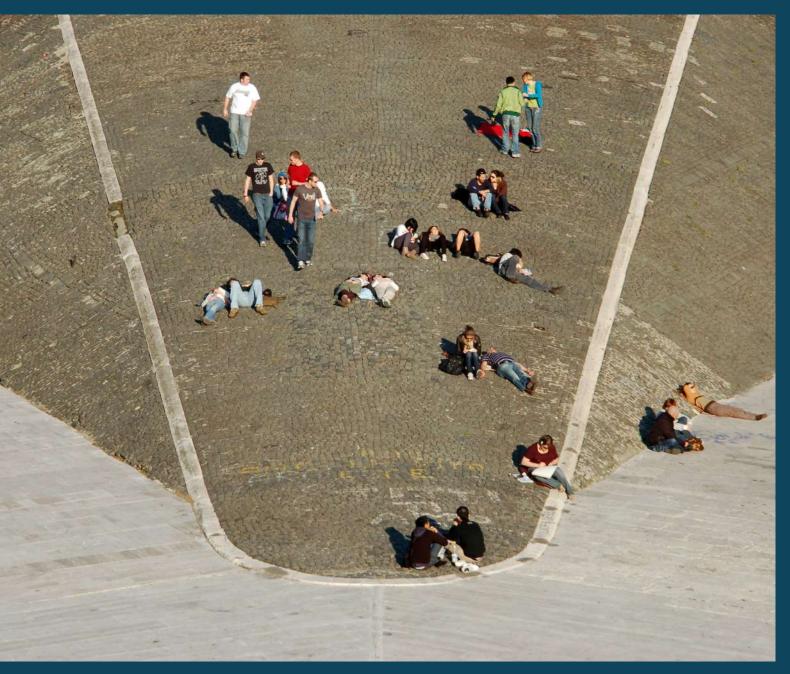
Department in Charge: Head Office

Partner: Different Departments and stakeholders to identify

Status: Currently in progress: once the members have been identified, the Office will be formalized following a managerial decision; the persons in charge are currently trying to find suitable premises.

Period: Short-term

- Facilitates coordination and sharing of resilient actions with the Offices
- · Creates the conditions to apply the principles of resilience to change processes of the city
- Encourages a collective awareness of the uncertainties and problems the city experiences and how to resolve them
- Ensures information on the problems of the city
- Encourages a changing vision that attempts to find innovative solutions to respond to changes



FOCUS

Resilience Agency

Mexico City, Mexico



In September 2017, one year after the publication of the Resilience Strategy, Miguel Ángel Mancera, Mexico City's Mayor, announced the creation of a permanent office: CDMX - or Ciudad de Mexico - Resilience Office"; a decentralized agency of the local Office of the Department of Environment (SEDEMA). The Agency, which is the first of its kind in Mexico, but that has already been established in other cities such as Barcelona, New York and New Orleans, aims at working in a holistic and flexible manner on different levels of governance (city, region, state), involving public and private stakeholders, the scientific community and the civil society. In particular, the Agency will be responsible for liaison, verification, analysis and supervision of programs and projects that address the question of resilience, with the support of other agencies, institutions, associations and organizations; it will also co-design a system that may facilitate the transmission of information to promote continuous learning and innovation.



GOAL A:

Make the administration of the city more efficient, transparent and participatory; and ensure the monitoring of procedures

In the first phase of analysis, one of the stresses identified is fragmented and slow bureaucracy.

In order to ensure that this weakness does not affect the lives of citizens, companies and operators, including foreigners, it is important to act on the structure and procedures of the administration, by undertaking the following:

- working on the mechanisms that regulate the formation of the annual program and budget will ensure consistency between project costs and funding for project implementation;
- intervening on the municipal "Macrostructure" will help to streamline workflows and improve communications between Offices;
- creating a one-stop information desk for citizens and businesses will help relations and increase the levels of transparency;
- focusing more on tenders will protect the whole Public Administration system from situations of illegality and corruption.

I.A.1. Link the budget commitments to the three-year annual programming of the Departments' activities

Introduce measures to organize the programming department institutions (Documento Unico di Programmazione, Single Programming Document, DUP) and, therefore, the allocation of funds. Programming is intended as the drawing up of three-year and annual expenditure and design plans in order to guarantee the funding and completion of projects, while ensuring that these are no emergency projects as currently occurs in most cases.

Department in Charge: Various Departments

Partner: No

Status: In progress

Period: _Medium-term

SDGs: 1 A 16 16

The Value of Resilience:

- It allows to put aside the logic of emergency
- It ensures strong and effective programming of projects and works
- It makes the implementation of programd public works realistic
- It facilitates the completion of technical administrative procedures
- It ensures greater transparency of the administrative action
- It ensures greater control over the actions of the Public Administration
- It increases the confidence of citizens towards the Public Administration

I.A.2. Reorganize the running of Departments and encourage synergies with other institutions

Guarantee measures that ensure coordination, cohesion and synergies among Departments, City Council Offices and other Institutions, including law enforcement agencies.

Department in Charge: Various Departments

Partner: Other Entities and Institutions

Status: In progress **Period:** Medium-term

SDGs: [💥 , 🛞

- It ensures more coordinated, strong and efficient programming of projects and works
- It permits intervening on inefficiencies in a coordinated manner
- It makes communications between Offices and the completion of preliminary and approval procedures, faster and more certain
- It ensures greater transparency of the administrative action
- It ensures greater control over the actions of the Public Administration
- It increases the confidence of citizens towards the Public Administration

I.A.3. Create a unique communications interface between private citizens and the Public Administration with the help of new technologies

Create a unique communications interface between citizens and the Public Administration with the help of new technologies. The New Rome Portal will become the reference interface for citizens, city users and tourists, ensuring immediate and easier access to online services. An online URP service will be provided integrated with the existing call-center (060606). The Unique Reporting System will trace all the reports made by citizens, in a single environment, ensuring the visibility of the progress status to resolve them. In the near future, the Digital Home for the citizen will finally offer a personal environment in which a citizen may easily find, with their profile, the most useful services, data concerning the same and the status of all the paperwork relevant to procedures.

Department in Charge: Digital Processing

Department

Partner: Various Departments

Status: New

Period: Medium-term

SDGs: M

The Value of Resilience:

- It helps relations between citizens and the Public Administration
- It streamlines the red tape process of "formalities"
- It helps the dematerialization of documents produced in the context of the activities of the Public Administration
- It supports technological innovation

I.A.4. Establish guidelines to optimize the planning, construction and management of projects

The action will facilitate the distribution of the Building Information Modelling tools, in compliance with European Directive 24/2014, to public and private technical offices. It will also bring forward the national objectives as far as possible in terms of the obligations to introduce such guidelines, through training courses and pilot projects, in order to reduce costs and lead times for works and maintenance. It also promotes the distribution and the application of the Minimum Environmental Criteria (Green Public Procurement) in tenders of any kind, with specific guidelines and operative tools.

Department in Charge: Various Departments

Partner: No

- It ensures greater transparency of the administrative action
- It creates the conditions to avoid cases of malfeasance
- It permits putting aside the logic of emergency
- It makes the implementation of programd public works realistic
- It ensures the quality of the work of the winners of the tender
- It increases the confidence of citizens towards the Public Administration



GOAL B: Incentivize centralized governance actions

Another objective with the scope to respond to the critical issues of fragmented bureaucracy, is the possibility of centralizing projects, procedures, approvals, outputs and controls on a single authority that coordinates and manages all the necessary skills.

It is therefore a question of reorganizing some of the Municipal Offices to bring together specific expertise, that are currently fragmented across different Departments, by creating single higher-level Offices.

It will be fundamental to create a more fluid communication between Offices and Departments at different levels and also entities or institutions (Region, Government); to promote integrated and long-term planning by sharing data in the different Municipal Departments; effective and transversal sharing of knowledge based on reliable information; and systematic monitoring and analysis of data to implement and upgrade the town planning strategy.

I.B.1. Complete the implementation of the 'Rome' laws required to ensure greater governance autonomy of the region (e.g. archaeological parks, rivers, etc.)

The action will increase the governance capacity of various aspects of the city that are currently characterized by high administrative fragmentation (Legislative Decree no. 156 of 2010 on the provisional Rome law, was the first measure to be issued to implement the delegation set forth by article 24 of Law no. 42 of 2009 on fiscal federalism; to complete the law of the new local authority, legislative decree no. 61 of 2012 was issued).

Department in Charge: Mayor

Partner: Government

Status: New
Period: n/a
SDGs: 50 17 17 18 17

The Value of Resilience:

- It attributes to Rome greater powers and delegations on matters of strategic importance
- It allocates to Rome more public funding
- It allows greater efficiency in the Administration
- It reduces the time required for investigations and approvals of projects and works

I.B.2. Create a unique geographical database that may be updated and shared

The New Mapping Infrastructure (NMI) is Rome's new platform for the integrated management of spatial data of interest to the Municipality. Various sectors of the Administration transmit data related to town planning, heritage, mobility and road maintenance, the environment, green areas, tourism, commerce, sports, etc. The cornerstone of the NMI is its database that was designed, to be:

- unique, so that information is no longer redundant between the different Departments and it is therefore easier to maintain a status that is consistent as a whole;
- continuously updated, in order to ensure that the consultation and processing of data is as close as possible to reality, at all times;
- shared, to ensure the greatest possible dissemination of knowledge within the Administration and the social-economic fabric of the city.

Department in Charge: Digital Processing

Department Partner: No

Status: In progress **Period:** Medium-term

SDGs: 🚓

- It promotes flexible and integrated coordination between partners to ensure integrated planning
- It allows greater efficiency in administration
- It reduces public spending and working times in the phases of data and information retrieval
- It is designed to work on a shared and comprehensive data and information platform
- It improves the quality of life thanks to better planning
- It decreases the replication of data and information

I.B.3. Establish a Geological Survey of Rome to unite the governance of the urban subsoil

Currently the responsibilities for geological aspects (soil and subsoil), are distributed across different departments of the Administration, without any effective coordination. These include, management of geological and hydraulic instability, planning, management, and mitigation of risks, administrative management of contaminated sites and monitoring of groundwater, mining and underground cavities, the creation of theme maps, as well as the relevant data and information.

The goal of this action is to reorganize these offices and data available, to a single higher-level structure named Geological Survey of Rome with respect to the departmental organization, namely the Rome Geology Department.

Department in Charge: Head Office

Partner: Various Departments

Status: New

Period: Medium-term SDGs: 9 15 17 17

- It facilitates the management of subsoilrelated topics, avoiding overlapping positions
- It makes the Administration more efficient in terms of territorial planning and prevention and prediction of natural risks
- It ensures that information about the subsoil, that are today somewhat fragmented, are shared and consistent
- It establishes a unique institutional figure in inter-institutional relations relevant to the subsoil
- It provides technical advice to the Administration



In order to make use of innovative solutions that address key issues such as the quality of life, sustainable development, social inclusion, eco-sustainable mobility and energy, etc., a Smart City project will be developed, with the main goal of building a route to a Smart City that is able to interpret technological innovation and overcome the digital divide of its citizens.

A number of new technological interventions are accordingly being planned - such as the creation of a platform containing open data accessible to all, free Wifi in public areas, the creation of squares of innovation and new public access points throughout the region - in order to support the transformation of spaces and times, enhance social networks and assets and developing social capital by providing elements for better usability of mobility systems, security, services and the environment.

I.C.1. Introduce guidelines for updating the Open Data platform

The activities include: defining the Technical and Operational Guidelines for the Production. the Compilation and Characterization of Metadata and the Publication of Open Data of Rome: the organization and creation of a support network, in the Administration of Rome, for the collection of data in open format: conducting an investigation on the most interesting data held by the Administration, not subject to special limitations for publication; the use of machine-readable file formats and open standards for structuring and the compilation and characterization of metadata for data and datasets; and the creation of an Open Data publishing platform. Open data may in this way be freely used, reused and redistributed by anyone, subject only to allocation and sharing in the same way without restrictions tied to reuse thereof (commercial or otherwise), pursuant to license CC-BY 4.0.

Department in Charge: Control room, Head Office

Partner: Region and other public and private

partners

Status: In progress **Period:** Short-term

SDGs: 🚓 🗚

The Value of Resilience:

- It makes the work of the Public Administration transparent
- It facilitates the transfer of data and information between stakeholders
- It enables faster, simple and free access to data
- It ensures better management of work by public and private entities

I.C.2. Upgrading the public Wi-Fi network and coverage

Upgrading the WiFi hotspots network of the Capital by integrating them with Wi-Fi Italia in order to offer citizens and tourists the possibility of using the services of Rome throughout the region. The services and information content may therefore be viewed on the move, and dynamically updated according to the user's location (Geo-referencing) in order to effectively respond to the needs of citizens and tourists. The network uses 'cloud' technology that integrates into a single service model the three basic components of the project - Captive Portal, mobile App and network connectivityeasily accessible through smartphones and tablets, allowing the integration and use of the Administration services.

Department in Charge: Roma Semplice

Partner: Telephone service providers

Status: In progress

Period: Short-term

SDGs:

- It allows everyone to connect easily and safely to Wifi networks of the city throughout the region
- It permits the integration and use of Administration services
- It permits the consultation of services and content in real time according to the user's location
- It permits networking the technological tools for data collection of the city

I.C.3. Construct a Smart Grid

Create a Smart Grid (network with smart sensors that collect information in real time, optimizing the distribution of integrated thermal energy) in an experimentation district in order to create a PEB - Positive Energy Block - for the use of thermal energy from renewable sources.

Starting from the same district, the Smart Grid will be expanded to a wider area, defined as the PED - Positive Energy District - in order to obtain a null or positive energy balance in the district.

This pilot project will demonstrate the benefits of the technology and will be used to train the operators of the Administration. Department in Charge: Infrastructure

Development and Urban Maintenance Department

Partner: Private stakeholders

Status: New

Period: Medium-term

SDGs: 🚓 🕍

- It simplifies energy distribution
- It makes energy distribution less expensive
- It helps to train municipal employees
- It simplifies access to renewable electrical energy sources
- It has a positive impact on the environment





GOAL:

A. PROMOTE THE CULTURAL LIFE OF THE CITY

B. PROMOTE URBAN REGENERATION

C. PROMOTE THE REGENERATION
OF THE LANDSCAPE AND
NATURAL HERITAGE IN THE URBAN
ENVIRONMENT

D. ENCOURAGE THE FARMING TRADITION OF THE CITY

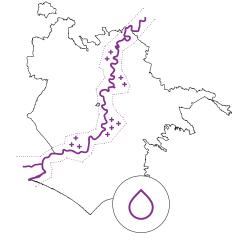
E. IMPROVE THE ATTRACTIVENESS AND SAFETY OF ROME

F. ENSURE THE SAFETY OF THE PUBLIC AND PRIVATE HERITAGE SITES IN THE CITY

G. PREPARE THE CITY'S ADAPTATION TO CLIMATE CHANGE

PRIORITY ACTION 1:

Govern the relaunch of the River Tiber by implementing projects coordinated by the Special Office for the Tiber





It has always been very difficult for Rome to protect the precarious equilibrium of the Tiber River. Despite the fact that the alluvial areas of the river continue to have many different types of fauna and flora, the River Tiber is almost completely divorced from the lives of the citizens of Rome who only become aware of the Tiber in times of flooding. The Tiber however involves many different aspects such as the environment, cultural events, transport, urban planning and sports. Finally, the current urban regeneration processes are now considering the importance of a direct relationship between the river and the city. The project to relaunch the river is an extremely complex one in terms of administration and maintenance. On 30/10/2017, the current Administration of Rome established the Special Office for the Tiber (Ufficio Speciale Tevere, UST) with the aim to improve the historic and environmental aspects of the urban section of the River, as well to protect the water and shores through a maintenance program and innovative monitoring tools. The Special Office for the Tiber helps to simplify the technical and administrative formalities involving the River Tiber and its tributaries, and ensures that planners and stakeholders who perform works in the alluvial area receive prompt feedback from the Public Administration, while encouraging the collaboration of citizens in design and planning activities. UST projects involve all the City Council Offices and the relevant Departments. One of the first achievements of the Office was the planning project for the redevelopment of a number of parks along the banks of the River Tiber, and intensive monitoring of river and alluvial areas as a result of the planning and introduction of innovative systems. The link between the UST, the Local Police and the Civil Protection is important and ensured greater supervision of degraded areas and the introduction of urgent safety measures. One of the key outcomes is the creation of permanent working groups promoted by the UST whose members include Lazio region, the Basin Authority of the Central Apennine Hydrographic District, Rome Harbour Office, Civitavecchia Fiumicino and Gaeta Port Authority and the Tiber, and Agro Romano Reclamation Consortium.

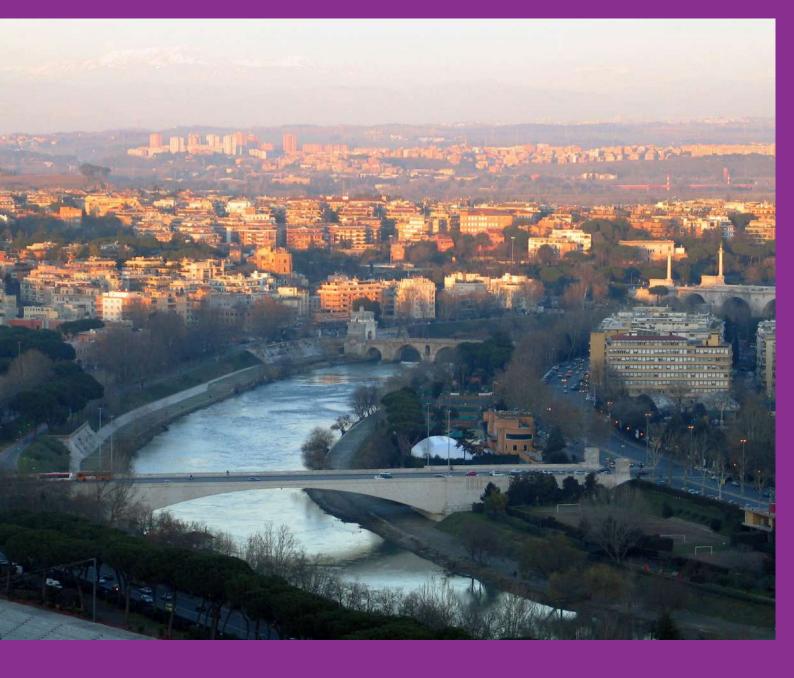
Department in Charge: Head Office

Partners: Lazio Region, Metropolitan City, Lazio Region, the Basin Authority of the Central Apennine Hydrographic District, Rome Harbour Office, Civitavecchia Fiumicino and Gaeta Port Authority and the Tiber and Agro Romano Reclamation Consortium.

Status: In progress. The members of the Permanent Technical Committee are Lazio Region, the Basin Authority of the Central Apennine Hydrographic District, Rome Harbour Office, the Civitavecchia Fiumicino and Gaeta Port Authority and the Tiber and Agro Romano Reclamation Consortium. The Committee will help to streamline the procedures to execute the projects to ensure that some of the Tiber alluvial areas may be used. The final project to create an urban beach along the alluvial area of the Tiber close to Marconi Bridge is currently being completed.

Period: Medium-term

- Ensures liaison with the competent Tiber authorities in order to ensure efficient coordination
- Ensures supervision of the river bed and banks
- Encourages the development of specific development projects
- Ensures greater protection of the environment and landscape along the river



FOCUS

Proyecto Integral Río Mapocho

Santiago del Chile, Chile



River Mapocho is a fundamental resource for Santiago: it is the main axis of the city and passes through 16 Districts characterized by diverse urban typologies. After a period of gradual abandonment and decay, the River became nothing more than a disfiguring scar running through the city; then in 2010, the importance of the River was reconsidered and informal events and initiatives were organized to encourage a process of regeneration. Despite widespread consensus, however, the "Proyecto Integral Río Mapocho" was not officially funded until June 2017, when the Region approved a funding of about 10 million US dollars. The project had also been included in the City's Resilience Strategy, published in March 2017, as a priority initiative under the pillar "Social Equity", whose scope was to develop a City capable of reducing social differentiation and fragmentation of the region through equal benefits and opportunities for all its citizens. In this new perspective, the River once again became a dynamic public space. Some of the main projects included: the creation of a 42 km cycling and running tracks, environmental reclamation, and restoration of the River banks in order to create new high-quality public spaces.

PRIORITY ACTION 2:

Evaluation of the resilience potential of the regeneration of Ostiense Marconi district





Introduction of tools for the assessment of the resilience potential of projects for the implementation of the Urban Project for the regeneration of the Ostiense-Marconi district (PUOM).

This plan ensures the introduction of resilience measures at different scales, through the implementation of public space improvements, and sustainable mobility to curb the socio-economic and environmental impacts for the entire region.

The district, which has an important university, abandoned areas and buildings, will be redeveloped with the construction of a new road system and a transport interchange at the Marconi Metro B stop, reconnecting of the urban fabric with the River, as well as the restoration of the abandoned heritage focusing on urban quality, to respond to the increase in population. Planning of the land and public spaces that connect the different projects may be an opportunity for resilience.

Department in charge: Urban Planning Office

Partner: ROMA TRE University and private organizations

Status: In progress. Feasibility studies and/or preliminary projects are currently being developed for:

- A network of cycling-pedestrian paths to connect the main district functions with the main communications
 networks, exchange points and universities; the next steps involve the inclusion of funds budgeted for the
 preliminary project.
- The construction of a transport interchange at B Marconi stop. A call for an expression of interest by private organizations will be published for the execution of the works financed under the project.
- The redevelopment works of Ostiense square; the preliminary project has been approved and the final project will now be drawn up.
- The redevelopment of the open space system, with the creation of Botanic Gardens. An agreement with Roma Tre University for the co-management of the areas is currently being studied.

Period: Medium-term/long-term

- Implements innovative urban regeneration processes and ensures the recovery of the abandoned heritage
- Enables synergies between public and private stakeholders
- Strengthens the environmental, transport and building trade systems, in a resilient manner, by integrating the same
- Creates the basic conditions to increase employment
- Increases the number and type of housing available
- Increases green areas and resolves the problem of heat islands caused by high urban density



FOCUS

Resilience Dividend Valuation Model

Case Studies: Nepal, Pakistan, USA, Vietnam, Bangladesh

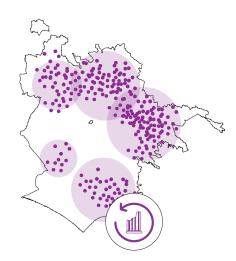


In collaboration with the Rockefeller Foundation, the Rand Corporation has developed a tool which enables the community and Government not only to understand the intrinsic value of resilience, and also to quantify its potential in economic terms. The "Resilience Dividend Valuation Model" indeed allows decision makers to evaluate the resilience potential through a scenario based approach, and make the community aware of the short and long term economic, social or environmental benefits of investments. The tool may be used to compare different potential investments and thus decide the best approach to use after examining the social and financial co-benefits of a project. More specifically, the Rand Corporation and the Rockefeller Foundation have developed a framework, a tool intended as a guideline for the analysis and valuation of the value of resilience of policies and projects. The tool has already been tested in some specific contexts in order to assess its effectiveness: Oxfam Nepal, Oxfam Pakistan, Diamond Valley - Nevada, USA, Forest Bond -USA, ISET Da Nang, Vietnam, Asian Development Bank - Bangladesh.

PRIORITY ACTION 3:

Change the perception, use and promotion of the archaeological and cultural heritage sites in Rome for citizens' everyday life





The project consists of actions and tools that allow the residents of Rome to freely experience the historical and cultural heritage of the City.

The first and most important action to allow Roman citizens to experience this incredible heritage in a totally new way, is to facilitate and encourage access to the network of the 21 Town Museums of the City. Visits to the museums will be encouraged by allowing citizens to buy a Mic Town Museum membership card at a symbolic fee of 5 Euros; membership allows unlimited admission to the permanent and temporary exhibitions of any Town Museum for 12 months.

The purpose of this initiative is to allow all residents to have equal access to cultural sites, through faciliating museum access to everyone in the city. The project develops further activities that make museums more appealing by developing integrated ancillary spaces, services, improving cultural events, and involving the stakeholders who organize training for young and very young people. The aim is to reinvent the function of the museums and make them dynamic cultural attractions that are key part of the public spaces in the city.

Another goal of the project is to expand the museums included in the Project by collaborating with Government museums, archaeological parks, the Vatican museums, and others.

Departments in charge: Rome Monuments and Fine Arts Office

Partners: Different Departments and in-house companies of Rome Municipality (Zètema, Libraries of Rome, ACEA-pending)

Status: There are three phases:

- Phase 1 (summer 2018)- launch with 150,000 MIC membership cards
- · Phase 2 (September 2018)- issue and distribution by mail of the MIC membership cards to 2,400,000 citizens
- Phase3 (as from January 2019) activities, spaces and services

Period: Short-term/medium-term

- · Permits everyone, every day, to enjoy the historical and cultural heritage of Rome
- Encourages the cultural growth of citizens and their participation in the cultural life of the City
- Promotes sustainable mobility
- · Promotes the image of Rome in the world





GOAL A: Promote the cultural life of the city

Rome experiences stresses that have an impact on the social identity of its population including: demographic changes, the impoverishment of the population, migratory pressure and the current real estate industry situation. These are just some of the factors that are creating more and more social inequality and frustration, thereby increasing the uncertainty about the future and the fear of diversity.

The city is in danger of losing the heritage and the cultural capital it has acquired over the years; to curb this trend it is important to develop a city where human rights and welfare are priority values, even through cultural policies that rebuild strong social relationships.

It is important to increase cultural experiences and the opportunities of consolidation in order to create moments where people share and enjoy experiences, imagination, and creativity, throughout the urban area, rather than just in the central areas. This can be achieved by integrating the historical-archaeological heritage in the daily life of the city, with a model that combines social relationships, well-being and economic activities and encourages empathy, generosity and respect.

II.A.1. Reorganize the management of the cultural sector

From a disorderly to an integrated system - Council resolution 126/2016 redefines the management organization of the cultural sector in order to maximize synergies, protect and develop the cultural heritage. The new service contracts of companies in the sector will take into account the decisions of the resolution.

The structures, institutions and companies of Rome and its affiliated companies, should once again become credible partners for everyone: each with specific but well coordinated tasks. No longer in random order, no longer with diverging goals, no longer in competition with each other. A system will therefore be adopted to ensure cultural growth that collaborates with the Italian State and international cultural institutions based in Rome.

Department in Charge: Cultural Activities

Department

Partner: In-House Companies

Status: In progress **Period:** Short-term

SDGs: 4

The Value of Resilience:

- Makes it possible to integrate, coordinate, optimize relationships between the cultural institutions of Rome
- Permits developing factors that are determining for the cultural growth of the city
- Helps to promote and enhance the incredible historic and artistic heritage of the city more harmoniously
- Encourages the dissemination of culture and contemporary art

II.A.2. Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer

Support entities that present new contemporary art events that enrich the cultural offer of the city.

Contemporaneamente Roma (Contemporary Rome) is an initiative that offers, together with the events proposed by Rome's institutions, a rich program of events selected through a Public Call Notice published by Rome to disseminate the role of Rome as the capital of contemporary culture.

Department in Charge: Cultural Activities Department

Partner: Associations and Municipal Districts

- Promotes the dissemination of culture, science and contemporary art throughout the region
- Promotes employment in the cultural sector
- Promotes the image of Rome in the world

II.A.3. Organize seasonal programs of cultural events throughout the city

Create a cycle of seasonal cultural events throughout the region. Currently the year is structured through:

- A program of events dedicated to science and its dissemination in Spring. For its organization, the Rome Administration works with universities and research centers;
- The Estate Romana (Roman Summer)
 event, which has reached its 40th
 edition, brings events that encourage
 the participation of the public and forms
 of collaboration between associations
 throughout the region;
- The event Contemporaneamente Roma is held in autumn and is dedicated to contemporary art and culture, with the focus on the product of new and advanced levels of cooperation between institutional and other operators, that work to encourage the growth and dissemination of contemporary culture and creativity;
- New Year's Eve-"Festa di Roma" An entertaining one-day public festival, no entrance fee.

Department in Charge: Cultural Activities

Department

Partner: Associations and Municipal Districts

- Permits renewing programs for seasonal events and to diversify the same
- Promotes employment in the cultural sector
- Strengthens the cultural identity of the city
- Promotes the image of Rome in the world

II.A.4. Assign a new role to public libraries by organizing innovative socio-cultural programs for the local communities

The Rome Libraries Institution is an entity of Rome that carries out social services, with full operational autonomy. The scope of the Libraries Institution is to ensure the right to culture and information, by promoting the development of communication in all its forms. The Libraries are a fundamental monitoring unit in the city and in the suburbs. They will be assisted in their work to explore new frontiers and old knowledge, to become a meeting place together with schools. A new network will be created to connect these cultural centers that are to become focal points for exploring new frontiers of technology as it is applied to artistic expression, interaction between the public and creativity, a playground and place of learning for children and families, between Italy and the world.

Department in Charge: Cultural Activities

Department

Partner: Associations and Municipal Districts

The Value of Resilience:

- Enables libraries to increase the range of the cultural offering
- Encourages social cohesion
- Encourages social identity

II.A.5. Start the application to list Ostia Antica as a UNESCO World Heritage Site

With Motion no. 109 of 11 December 2017, approved by the Rome Assembly Meeting on 12 January 2018, the Mayor and the Council undertook to start the procedure of filing the application for the listing of Ostia Antica, the Historic Village and Giulio II Castle, as UNESCO World Heritage sites, to ensure that they are protected and may become a world attraction of sustainable tourism.

Department in Charge: Department of Tourism, Training and Employment

Partner: National Monuments and Fine Arts Office, Lazio Region, Ministry of Cultural Heritage and Ministry of Foreign Affairs, Associations, UNESCO

Status: In progress **Period:** Medium-term

SDGs: "

- Ensures the protection and utilization of the historical and cultural heritage
- Encourages the cultural growth of citizens
- Promotes the image of Rome in the world

II.A.6. Fashion Relaunch Plan of Rome

A project with the scope to ensure the repositioning of Rome in the fashion industry to relaunch both the manufacturing Haute Couture sector, which was once considered to be an excellence of Rome, and the development of sustainable tourism in the city. The aim is to assist in the rebuilding of a fabric of small artisanal businesses in the fashion manufacturing industry while encouraging a structured approached to attract young talents in the region. Rome could become a leader in the development of educational tools and means to promote and support young businesses in the fashion industry, pending new connections with the academic world.

The project is based on the following cornerstones:

- Strengthen and coordinate the training projects currently offered by schools and universities
- Create a fashion hub where artisanal businesses and laboratories would be located
- Promote the image of Rome as an ideal place for the development of fashionrelated creative arts
- Create synergies with other agencies that develop fashion in Italy
- Involve historical Roman couturiers in the planning of training courses and introduce young talents to the world of employment, organize and sponsor promotional events.

Department in Charge: Department of Economic Development and Production Activities

Partner: National Chamber of Italian Fashion, Italy Fashion System, Universities, Historical Roman Couturiers

Status: In progress

Period: Short-term

SDGs: 17 8 17

- Promotes the image of Rome in the world
- Enables synergies between public and private stakeholders
- Attracts private investment
- Promotes the world of youth employment



GOAL B: Promote urban regeneration

In the last twenty years Rome has undergone significant urban transformations that have made some areas of the city difficult to use and not sustainable in social, economic and environmental terms. The result is a city with countless abandoned buildings, under-utilized areas characterized by urban decay that could however represent new opportunities. The development of the city today depends on the ability to reinvent these spaces by systematizing different interests and opportunities, while building and maintaining connections within the city as well as dynamic connections with other cities.

Introducing urban regeneration and programs means considering the city region with perspective programs that learn from the past and look to the future by interpreting the present. It will in this way be possible to tackle the housing shortage problem that afflicts the more vulnerable social classes; introduce integrated measures for public mobility; respond to the strong pressure on the environmental and historical-cultural heritage of the city and find solutions to increase the appeal of the city in order to attract private investments.

II.B.1. Activate Fabbrica Roma (Rome Factory), a regeneration plan for abandoned public buildings

The scope of the project Fabbrica Roma (Rome Factory) is to offer a new vision of the city and plan its economic and social development in a dimension where the focus is on innovation, infrastructure, "zero bureaucracy", exemption from taxes, fighting any tendency towards deindustrialization and keeping alive the productive fabric, to attract companies and talents.

In addition, the real economic recovery plan of the city includes actions to identify strategic abandoned public areas and buildings close to mobility networks, and transform these with the help of private investors. The scope is to create far-reaching projects that respond to changes in the way people live in the city, with multiple functions that help create jobs promoting the social and sustainable development of Rome.

Department in Charge: Heritage Department and

Housing Policies Urban regeneration

Partner: Private stakeholders

Status: In progress

Period: n/a

SDGs: 🚓 "CO "

The Value of Resilience:

- Implements innovative processes of recovery of the public heritage by promoting multifunctional spaces
- Enables synergies between public and private stakeholders
- Attracts private investment
- Helps to obtain private funding for projects
- Creates the basic conditions to increase employment and the number and quality of service

II.B.2. Upgrade the Building Regulations according to new housing and working needs

New Building Regulations to adapt the size of homes and the habitability requirements according to new and different lifestyles - easily transformable homes. One of the most important goals is to encourage works on existing buildings given that current regulations are based on a vision that encompasses only the "new building".

Moreover, given the new types of hostels, houses that are rented for limited periods of time or the redefined offerings from large hotel chains that are now available in big cities, Rome will also be in a position to offer places where spaces and activities may be shared, developing a concept of sharing based on the identification of a lifestyle and services offered at a fee.

Department in Charge: Urban Planning Office

Partners: No

Status: In progress **Period:** Medium-term

SDGs:

- Responds to social changes and lifestyles
- Offers multiple housing models
- Attempts to create the conditions to meet the mobility problems by creating multifunctional and very accessible workplaces or close to the places where people live
- Attracts private investments

II.B.3. Regenerate the Tiburtina Stations and Pietralata areas

Update the Development Plan for Tiburtina Railway Station and the Sistema Direzionale Orientale Pietralata (Eastern Directional System) Agreement for the urban redevelopment of the Tiburtina Railway Station area as the first major urban hub and junction of the city. The scope of the program is the strategic redevelopment of the area as a whole, bringing all the components of urban transport together in a hub, to rationalize and strengthen the system and increase innovative transport. The program also includes a reorganization of the functions and infrastructure services of the Eastern Directional System and Tiburtina Railway Station System Districts, connecting these systematically in order to make the hub as an axis of development for employment, innovation and transfer of technology; through shared processes of urban marketing. The area will be used for the Smart Grid pilot projects (Nearly Zero Energy Building Areas, Positive Energy Blocks and Positive Energy District) as part of Rome's participation in two European calls under the Horizon2020 Clean Energy Program.

Department in Charge: Urban Planning Office

Partner: RFI, Sapienza, Private, Tibus, Cotral

The Value of Resilience:

- Implements innovative and resilient urban regeneration processes
- Attracts private investment
- Encourages the transfer of technology
- Responds to the need to create an intermodal exchange hub as gateway to the city at national and European level
- Increases functions and services and creates the conditions to start-up companies
- Promotes the social inclusion of housing
- Increases the number of green areas and is a solution to heat islands, which are a result of climate change and the high urban land consumption.

II.B.4. Reorganize the network of public and private transportation to streamline the mobility system (tram lines, bus lanes, cable cars, etc.)

The scope is to identify the primary road network, that ensure a more efficient distribution of city traffic. Pursuant to Resolution of the City Council no. 113 of 9 June 2017, the PUMS (Urban Mobility Sustainable Plan) defined a number of key aspects to become "fixed points" of the infrastructure projects. These included the following: tram lines, both new and to develop and upgrade existing lines, new cable car type connections to reach areas of the city using the different original heights and destinations.

In addition to the infrastructure, the Administration intends to build new bus lanes and protect the existing lanes in order to increase the speed of local public transport and make the service more competitive with respect to using a privately owned vehicle.

Department in Charge: Department of Mobility and Transport

Partners: In-House Companies

Status: New

Period: Short-term

SDGs: 9 11 A 12 12 13

- Ensures a more effective distribution of vehicle traffic so as to link users as a priority to key services
- More bus lanes increase the speed of transport and make the public transport service more competitive with respect to the use of privately owned cars
- The greater efficiency of public transport aims at reducing the use of privately owned vehicles
- Greater use of public transport reduces pollutant emissions

II.B.5. Establish incentives to facilitate the transfer of know-how between small-medium businesses, start-ups, institutions and research centers

Support partnerships between universities and research centers with the world of business. Support existing businesses, new projects and new entrepreneurial experiences with tax benefits and the simplification of procedures. Support the establishment of start-ups and business incubators.

Department in Charge: Department of Economic

Development and Production Activities

Partners: Universities and businesses

Status: New

Period: Medium-term

SDGs: 🥌

- Encourages research work and innovation in harmony with employment world
- Facilitates access to credit and/or public funding
- Helps to increase the number of jobs
- Promotes the inclusion of young people and university graduates in the employment world



GOAL C:

Promote the landscape and natural heritage in the urban environment

The natural landscape and heritage of Rome has exceptional environmental, ecological, historical, cultural and archaeological characteristics: this is a heritage of extraordinary value in terms of extension, biodiversity and complexity that must be managed with particular care and expertise. Its administration is characterized by a number of management challenges including lack of transparency, coupled with lack of funding and maintenance. This is leading to a decrease in usage of these places.

Rome is currently implementing policies that aim at overcoming these problems by enhancing this heritage and making it available to the city. This is an essential prerequisite of an important program that aims at developing the potential of the region.

II.C.1. Restore and/or reorganize the use of and access to the Roman coast by implementing the Utilization Plan for Rome's Coastline

Implementation of the Utilization Plan for Rome's Coastline (Piano di Utilizzo degli Arenili, PUA) used for environmental projects and the historical and tourist enhancement of the coastal area. These include: mobility; reorganization of State-owned concessions with single management through consortia; reorganization of accessibility and greater use of free beaches, greater specialization and segmentation of the offer for citizens and tourists

The PUA is a programming and planning tool for state-owned maritime areas approved by the City Council with memorandum no. 74 at the session of 13 November 2017.

Department in Charge: Department for Urban

Planning and Implementation

Partners: Municipality X

The Value of Resilience:

- Permits more transparent and effective management of the beaches
- Ensures use by the public of a enormous part of the beaches
- Redevelops the landscape of the waterfront
- Reduces the possibility of episodes of abuse and illegality

II.C.2. Implement the management reorganization of parks and historic villas by establishing a Curator who would also be responsible for planning the fundraising processes

Protect and develop quality, wealth, structure and the specific appearance of Rome's cultural assets based on the close connection between the artistic, historical and archaeological heritage and the landscape, including natural and architectural heritage, in order to ensure conscious use and a unique sensory and cultural experience. The new appointment of the Curator should have appropriate professional qualifications and expertise in order to be able to coordinate the care. protection, enhancement and management of the Park. The Curator will be responsible for the maintenance plans, management, cultural promotion including the planning and fundraising processes for each historic park, or groups of parks. The Curator will be assisted through the participation of citizens, as an instrument of protection and enhancement.

Department in Charge: Department of Environmental Protection - Department for the Territorial management of the environment and green areas

Partners: Associations

- Encourages the supervision, maintenance and enhancement of Parks and Historic Villas
- Permits unifying and simplifying management of the Green Area
- Encourages the preservation of the green areas of the city and their climate mitigation effect
- Attracts private investments
- Promotes the development of program for cultural events, sports, etc.



GOAL D:

Encourage the farming tradition of the city

Over its 1,285 km² Rome has large areas that have a strong farming tradition and still today produces high quality products. Rome is the largest farming "municipality" in Europe. Roman agriculture, which comes from centuries and millenia of tradition that up until the present has ensured its presence in the ranks of Italian food and wine products of excellence, must be protected from the risks that threaten the farming industry. Measures can include providing incentives to those who work in farming and resilience can be developed above all by raising the awareness and participation of citizens. Rome also maintains its status at an international level by having two farming estates with huge territories, but that entails an important challenge in terms of relaunching and streamlining these estates. This means using public funds and public-private partnerships to develop new innovative businesses, facilitating the growth of companies and young talents, supporting start-ups and opening new businesses by people of all ages, encouraging social farming to improve the quality of people's lives.

II.D.1. Relaunch farming companies managed by Rome

Now that the responsibility for the farming companies has passed from Rome to the Department of Environmental Protection, the management of these companies will be reorganized in order to relaunch their farming and forestry activities. The main goals of the program to relaunch these activities include the application of organic farming techniques; encouraging social farming; the use of the companies as educational farms and environmental education centers, as well as places of research/incubators for "food waste" ideas and creating biomaterials from green waste for a new circular-economy.

Department in Charge: Department of Environmental Protection - Department for the promotion of environmental protection and animal welfare

Partners: Private stakeholders

Status: New

Period: Short-term

SDGs: ¬√√ , 12 00 , 15 €

The Value of Resilience:

- Encourages a farming culture
- Encourages organizing educational activities
- Enables the production of quality products with low environmental impact

II.D.2. Develop new markets for farmers to support the direct sale of produce and products to consumers

The Farmer's Market Regulation provides the rules for the establishment and running of private farmers' markets which are an important aspect of supporting the local economy and encouraging the development of the resources in the region, the protection of the environment and the distribution of top quality products.

Department in Charge: Department of Economic

Development and Production Activities

Partners: Agricultural producers

Status: New

Period: Short-term

SDGs: " CO

- Helps maintain self-employed farmers
- Encourages O-km sustainable economy
- Promotes local wine and food of excellence

II.D.3. Increase food forests and urban vegetable gardens

The use of public spaces for growing "food forest" type fruit and vegetables, represents an economic, social and environmental opportunity. By encouraging people to have urban gardens, and even "food forests" (edible harvests through sustainable and lowmaintenance agroforestry), or to grow fruit and vegetables, it is possible to produce fiber plants, timber, wood, dye plants, industrial timber, and perfumes. These activities also result in increased colors, sensory experiences, recreation areas, habitat for wildlife, and encouraging sustainable environmental practices. This represents the redevelopment of marginal and residual parts of the city and at the same time raises the awareness of citizens on environmental matters. A specific regulation will be introduced to simplify the process of granting green areas owned by Rome for use as urban vegetable gardens/gardens, on a gratuitous loan for use basis.

Department in Charge: Department of Environmental Protection - Department for the Territorial management of the environment and green areas

Partners: Associations

- Encourages the supervision and maintenance of public green areas
- Promotes the participation of citizens
- Encourages a farming culture



GOAL E: Improve the attractiveness and safety of Rome

Rome is a city of beauty and has one of the greatest historical heritage in the world: Rome has an enormous wealth of archaeological treasures, numerous villas and historic parks, museums and art galleries, and one of the world's most famous historic city centers which is a designated UNESCO World Heritage Site. Rome also produces countless products of fine quality; however, with respect to other European capitals, Rome is not competitive in terms of tourism or investments by private companies.

This situation is due in large part to the city's poor infrastructure, above all the inadequate transport network.

Improving the attraction and competitiveness of Rome means acting simultaneously on the bureaucratic systems relating to Rome's infrastructure, beginning with public transport to connect the entire municipal area and develop connections with the wider region. The road network also needs to be developed to ensure more efficient use of public transport and sustainablemobility systems.

Flexible housing solutions should also be found for those who decide to stop over in Rome for brief work periods, finding new ways of living. The accommodation system needs to have provision and a price range suitable for young people and students. In regards to the urban landscape, measures should also be introduced to prevent urban decline and unauthorized trading.

II.E.1. Create tourist facilities to promote youth and student tourism

Encourage the opening of hostels and facilities to boost cultural and youth tourism throughout the city. This will trigger positive changes within the city's cultural life, making the historical, artistic and environmental heritage of the city available to a greater number of visitors, developing models of sustainable tourism, and making Rome as competitive as other European cities.

Department in Charge: Urban Planning Office

Partners: No

Status: New

Period: Medium-term

SDGs: [] A

The Value of Resilience:

- Increases the number of temporary and longstay houses available to young people:
- Promotes tourism for culture and events
- Promotes the development of sustainable tourism
- Makes Rome more competitive as a destination at a European level

II.E.2. Plan activities to promote the attraction of urban areas by increasing the number of cycling tracks, environmental islands and use of the public transport system

PUMS outlines a series of areas in which to develop and promote slow mobility modes. These areas will be connected through a pedestrian and cycling network and the public transport system; and at least one pedestrian area will be constructed for each Municipality. These pedestrian areas will become an integral element of the character and local identity of the Municipal Districts and will facilitate elements of inclusion, aggregation, and economic development by enhancing key characteristics of each neighbourhood.

In compliance with the Fossil Fuel Free Streets Declaration of C40, Rome undertook to have a zero emission city area by 2030.

Department in Charge: Department of

Mobility and Transport

Partners: In-House Companies

Status: In progress
Period: Short-term

SDGs: -\(\sqrt{\phi}_{11} \) \(\hat{1} \) \(\hat{1}_{12} \) \(\hat{1}_{13} \)

- Promotes district urban quality and its local identity
- Improves the quality of life for residents of the district
- Encourages social aggregation
- Enhances local commerce

II.E.3. Regulate businesses in the historic center in order to protect the quality of products and craftsmanship so as to preserve the identity and the propriety of the historic center

The Regulation to protect handicrafts and business activities in the historic center includes a list of the compatible goods and protected services, in accordance with quality principles and the specific features of Rome as historic city.

Controls on unauthorized activities will be improved by increasing the local police forces who carry out these controls.

Forms of support for artisanal and business activities in the historical center will be introduced, through local tax concessions that should be applied with specific mechanisms in addition to regulations and other forms of support with appropriate funds.

Department in Charge: Department of Economic Development and Production Activities

Partners: No

Status: In progress
Period: Short-term
SDGs: 12 PA 12

- Enhances the historical and urban value of the historic center of the city by slowing down the spread of incompatible activities
- Encourages activities committed to offering the quality and typicality of products, local handicrafts and quality bands
- Ensures more controls against unauthorized trading and tourist activities



GOAL F:

Ensure the safety of the public and private heritage sites in the city

Rome has a great number of public spaces and vast real estate properties and infrastructure on which routine or additional maintenance has not been carried out in recent decades. Policies should therefore be introduced to correct these shortcomings, ensuring that these properties and infrastructure are brought up to standard and may be used in safety to increase the availability of spaces at the disposal of the city. Control and monitoring measures should accordingly be carried out in all the stages of the works process: from planning to construction, above all using preemptive control measures that allow early intervention.

II.F.1. Protect infrastructure, public buildings, and schools

Plan, design and implement measures to secure the safety of infrastructure and public buildings, above all for school buildings. Complete structural checks and diagnostics in order to draw up, in the short-term, projects to introduce measures to minimize impact of traumatic events such as earthquakes. Support integrated surveys and plan to harmonize antiseismic and energy redevelopment measures, thus reducing costs and delivery times. This may also be achieved with a Building Information Modelling approach and tools, that should be promoted as a priority in the public tender sector. In line with a digitalization approach, systems to continuously monitor infrastructure considered to be critical and/or vulnerable should be developed, starting with pilot projects.

Department in Charge: Department for Infrastructure Development and Urban Maintenance - U.O. School Building

Partners: No

Status: New

Period: Medium-term

- Ensures people's safety in the event of a natural disaster
- Ensures full utilization of public assets
- Prevents deterioration and neglect of public assets
- Helps to upkeep the urban landscape
- Assists integrated long-term planning



GOAL G: Prepare the city's adaptation to climate change

The effects of global climate change are already evident even in the area surrounding Rome area where rainfall patterns have changed. Whilst the total amount of rain that falls is not that different, very heavy rainstorms often occur, during which the rain that falls in just a few hours corresponds to the rain that fell in the past over a much longer period. This puts considerable strain on the urban fabric of the city, where under-sized water drainage systems tend to cause flooding, and on the land itself where these unexpected amounts of water cause geological instability.

On the other hand, in summer, more and more often there are severe drought conditions, with "heat islands" in the city, especially where there is less urban green or when the city is poorly irrigated. With 18 km of coastline, Rome is also a coastal city, and the effect that rising sea levels will have on the city in the coming decades is hard to predict at present. Rome should redevelop the water drainage systems in urban areas at risk of flooding, in a resilient way. Measures will also have to be taken to counter the effects of very high temperatures both for the welfare of citizens, and to combat drought that could result in water rationing or water supply shutdowns.

As a long-term strategy, it is also important to raise the awareness of citizens regarding the effects and problems linked with the impacts of climate change in order to encourage them to use water and electrical power more carefully.

II.G.1. Create green and blue infrastructure to reduce urban heat islands

Environmental preservation, sustainable development and urban resilience are defined through the comprehensive planning of green and blue infrastructure. Buildings, technologies, and practices that use natural or artificial systems (green roofs, permeable flooring, rain gardens; etc.) will be fundamentally important for rain water management, and reducing air pollutants and mitigating the effects of urban heat islands. Green roofs will also be constructed, as part of an extensive energy redevelopment project for schools. In the same way, starting with schools and public structures that have adequate space, phyto-treatment or fish farming basins may be introduced, in order to reduce the heat island effect, recover greywater and slow down rainwater run-offs.

Department in Charge: Department of

Environmental Protection

Partners: Various Departments

Status: New

Period: Medium-term

SDGs: _-√√• ₁₃ **(3**)

The Value of Resilience:

- reduces the effects of heat islands in the summer
- helps to reduce water run-off to the drainage networks
- helps to refill aquifers

II.G.2. Assess the impacts of climate change and raise awareness among citizens

The effects of climate change are already evident and will become more evident in the vears ahead. The analysis of future scenarios with simulations and models to assess the effects of climate change, will be extremely important. In particular, the creation of a map of the areas at risk from the effect of heat islands and hydraulic-geological risks will enable implementation appropriate measures such as provision of information for citizens. and measures to mitigate the effects of these risks directly. It is of fundamental importance to raise citizens'awareness through campaigns, meetings in the affected areas and practical exercises in responding to the risks, allowing citizens to become an active part of urban resilience.

Department in Charge: Department of Environmental Protection - Energy Policies Office and SECAP

Partners: Civil Protection

Status: New

Period: Short-term

SDGs:

11 🗚 13

- Helps to raise awareness of climate change
- Provides information to plan urban cooling measures
- Provides information to plan measures to reduce climate risks

II.G.3. Create infrastructure and pilot projects to reduce the risk of flooding

Construct underground tanks and/or floodable squares in areas at risk of flooding. Develop (especially through research and simulation), and experiment using SUDStype solutions (Sustainable Urban Drainage Systems), distributed and incorporated in the building fabric and infrastructure, such as permeable road surfaces, reservoirs and compensating underground areas, filters to slow down rainwater run-off and other solutions. Natural -Nature Based Solutions (NBS) - will be preferred, but without neglecting the importance of ICT (Information and Communication Technologies) and IOT (Internet of things) to improve continuous monitoring and support emergency management.

Department in Charge: Department of

Infrastructure Development and Urban Maintenance

Partners: n/a

Status: New

Period: Medium-term

SDGs: 11 A 13

- Helps to manage the surplus water inflow to the drainage network
- Resolves or limits the effects of urban flooding
- Helps to raise awareness of climate change



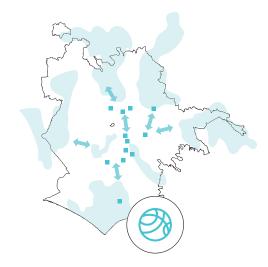
GOAL:

A. PROMOTE A HOSPITABLE CITY THAT RESPECTS DIVERSITY

B. PROMOTE THE CULTURAL GROWTH OF THE VULNERABLE POPULATION

PRIORITY ACTION 1:

Implement a program to encourage everyone into sports to enable social integration of diverse communities





The short/medium term goal is to promote inclusive sports, throughout the city, and especially focusing on the vulnerable peripheral areas. Financial support to access sport is provided by the regulation to promote sports. This is used to finance specific projects as well as the annual activities of associations, federations and sports clubs. The challenge for sport in Rome is to make it accessible to all Roman citizens, in order to promote their health, well-being and quality of life.

One of the most successful initiatives introduced is the movable tennis courts project, supported by the Italian Tennis Federation and CONI. Given the success of this initiative, Rome intends to extend this practice with the collaboration of national and local sports Federations, fit out temporary sports courts in all the Municipalities of the city. These movable and touring sports facilities, are easy to transport and assemble in areas such as squares, parks or beaches, and represent resilient solutions for urban systems that can adapt to increasingly complex challenges and changes.

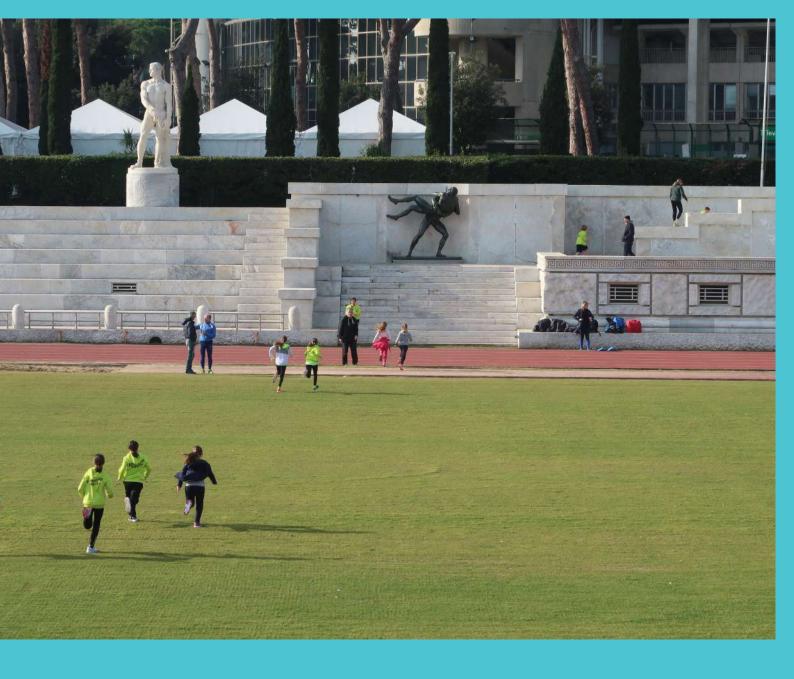
Department in charge: Department of Sport and Youth Policies, Great Events

Partner: n/a

Status: In progress A project for the construction of 3 new sports courts is currently being finalized; the funds for these courts will be included in the budget in the very near future. In the medium-term, temporary sports courts will be set up in all the Municipal Districts of the city.

Period: Short/Medium-term

- Promotes healthy life styles
- Encourages social inclusion
- · Creates the conditions to act on situations of fragility, social unrest and illegality



FOCUS

Cultural support, social and sport-related initiatives in the city

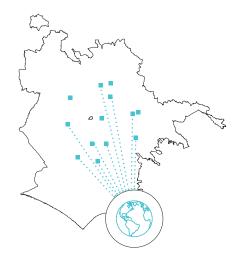


Amman, Jordan

The Amman Resilience Strategy, published in May 2017, identified a identified a number of actions including 'Support cultural, social and sport-related initiatives in the city'; an action that encourages the introduction of a 'tactical urbanism' approach - a term that indicates a temporary set of transformations of the urban environment at a low cost, with the scope is to improve the quality of life and stimulate interactions between different communities and social groups. The Greater Amman Municipality (GAM) as the authority in charge of providing sports, cultural and social services (for example: sports courts parks and public areas, playground, etc.) has therefore focused on the development of a diverse range of cultural and sports activities, in order to promote social cohesion, support children and young people and provide training to society as a whole. The action explores the potential of integrating cultural and sporting events; for example 'pop-up' football matches to encourage the integration of young refugees and asylum seekers.

PRIORITY ACTION 2:

Implement the new social integration program for asylum seekers and other people covered by international protection





The protection system for asylum seekers and refugees (SPRAR) consists of the network of local authorities that use the national fund for asylum policies and services to create integrated reception and accommodation programs. At a local level, using public tenders and third sector organizations, the local authorities provide "integrated reception and accommodation" actions including assistance and guidance through individual and inclusive programs of socio-economic and residential integration to reduce social conflict and develop a sense of belonging to the local community.

For example, the actions carried out by the third sector organizations include psychological counselling, cultural/linguistic mediation services, Italian language courses, the inclusion of children in schools, placement in professional training courses, professional internships, assistance for job placement, guidance and assistance for housing, the involvement of the beneficiaries in the activities offered in the area.

Rome has a total of 3,103 places. Following the changes introduced by the managing bodies and the adaptation of some structures as to 31 December 2017, there are now 1,990 slots in the reception and accommodation (SPRAR) project. Rome has participated in the SPRAR youth project since 2008; since 2017, there are 38 slots available.

Department in charge: Department of Social Policies - Inclusion Department

Partners: Third sector

Status: The reception and accommodation System SPRAR was started in 2014. This is a new action under the process to strengthen the city system. The scope is to strengthen this system, introduce employment bursaries, organize 3 training courses, organize 4 awareness-raising events in 4 territories.

Period: Medium-term

- Ensures subsistence and assistance
- Ensures social-economic integration
- Encourages social inclusion
- Helps cultural growth



FOCUS

The Athens Network Exchange: Global migration

Athens, Greece



September 2016, 100 Resilient Cities ran a 3-day workshop, hosted by the city of Athens, to promote in exchange knowledge between different cities in the network. Athens City summoned the Chief Resilience Officers of Amman, Athens, Los Angeles, Medellin, Paris, Montreal, Ramallah and Thessaloniki, in order to share efficient urban scale practices and tools, to meet the common challenge of migration. Each CRO was also accompanied by their municipal citizen migrants' policy official. During the workshop, the cities had the opportunity to discuss and share practices, with contributions from the partners of the 100RC platform - such as the International Rescue Committee, Mastercard and Esri - and other experts including representatives of the International Organization for Migration, Welcoming America, Brookings Institution, Mercy Corps, and the Office of the United Nations High Commissioner for Refugees. The Athens workshop offered a venue for collaboration and reciprocal learning. Athens currently hosts around 15,000 refugees and asylum-seekers, in a city where residents are faced with a national unemployment rate of 27%, 65% amongst young people.



GOAL A:

Promote a hospitable city that respects diversity

Rome, like so many other Western cities, has been affected in recent years by global phenomena that have a huge impact on social aspects of the city: the increase of migration flows from regions for whom the city is one of the first European capitals in transit towards Europe:

social-demographic challenges such as an ageing population and the difficulties young people face to find work; the economic crisis of 2008 not only impoverished the population, but also reduced the spending power of the public sector; last but not least, and as also occurs in other countries, there is a risk of strong social, political and religious conflicts, that may escalate into terrorist attacks. Reception and integration measures must be planned and introduced (access to housing, training, employment, sport, ...) that do not end merely

with welfare but attempt to ensure that the vulnerable segments of the population once again play an active role in society at all levels, including asylum seekers and beneficiaries of international protection. It will therefore necessary to think in terms of a far-reaching and inclusive form of governance that encourages cooperation between different stakeholders, by using human capital, encouraging the active part of the population and making use of existing associations.

III.A.1. Implement a program to strengthen and extend the support network for vulnerable communities

SASSAT - housing assistance Rome City Council Resolution 164/2017. The New Service for Assistance and Support to the Temporary Housing (SASSAT) for the right to housing of persons in conditions of social vulnerability. The introduction of the service is tied to the implementation of the General Welfare Plan as an alternative to the CAATS (Temporary Housing Service Centers) and uses the savings from the closure of these centers which is equal to an amount of 12 million Euro, that is already available. In addition to housing assistance, supervised training will also be provided by SASSAT to help people in these segments of the population overcome their position of economic and social vulnerability. Once the SASSAT has been fully implemented, it will be extended to all citizens who do not receive other forms of support who live in conditions of vulnerability.

Department in Charge: Steering Committee set up by the Department of Housing Policies and Heritage (Department of Housing Policies and Heritage, Municipal Districts, Department of Social Policies)

Partners: Third sector

The Value of Resilience:

- Ensures housing assistance
- Promotes social-economic integration
- Encourages social inclusion
- Helps cultural growth

III.A.2. Establish assessment criteria to assign public spaces under concession to NGOs, associations and organizations that promote social inclusion, education and sustainability

Allocation of housing to Associations for social promotion, voluntary organizations, NPOs and other third sector stakeholders whose scope is to launch cultural, educational and training initiatives, environmental protection and social initiatives above all to support socially vulnerable groups to facilitate the development of local local networks in the region: these are authentic "social condensors", places where urban communities meet, exchange information and socialize.

Department in Charge: Department of Cultural Heritage, Department of Cultural Activities

Partners: Third sector

Status: In progress

Period: Short-term

SDGs:

- Encourages social inclusion
- Helps cultural growth

III.A.3. Finalize Public Housing Development Programs and develop new energy-efficient social housing

Completion of the Economic and Social Housing Plans (Resolution CC no. 65/2006) by establishing a new framework for the allocation of unbuilt areas and the revocation of operators who have proved to be unreliable in terms of respecting agreements with Rome. Moreover, the scope of the review process of the urban planning tool is to re-plan a part of this important urban and public resource, by promoting better connections with the mobility networks and encouraging the construction of quality homes accessible to most, above all by monitoring social housing constructed by the private sector, as set forth by Lazio Region Regulation no. 18/2012, as amended by Regional Decree Law no. 104/2015.

Department in Department for Urban Planning and Implementation - Department of Urban Regeneration

Partners: Private entities

Status: In progress
Period: Short-term
SDGs:

- Provides housing assistance to lower income groups
- Encourages social inclusion



GOAL B:

Promote the cultural growth of the vulnerable population

The substantial changes of the demographic structure, especially the gradual ageing of the population, the increase of the foreign population, and the changes of social-economic conditions, are placing considerable strain on residents, and above all the vulnerable segments

of the population. Human rights and welfare, cultural growth, and strong social relations must be the common attributes of the population as a whole. Integrated reception and accommodation measures will be

guaranteed to unaccompanied children, the poor and immigrants, not only to ensure them a living but also to give them opportunities of choice and, above all, a life project purpose.

III.B.1. Introduce projects for the inclusion of children in the cultural life of the city in collaboration with other institutions

Open Schools Project following the implementation of law 285, in 1998 Rome introduced a number of Citizen Territorial Plans, with the involvement of other institutional stakeholders (Department of Education, Lazio and Abruzzo center of Juvenile Justice and the five Local Health Authorities of Rome) who signed the Program Agreements. In recent years, the decision was made to continue the interventions that were started with the previous plans, within the framework of the Social Development Plan, which also includes the projects funded by Law 285.

Department in Charge: Department of Educational and School Services

Partners: Ministry of Social Policies, Third Sector, Municipal Districts

Status: In progress

Period: Short-term

SDGs: | | | | | | | | | | | | |

The Value of Resilience:

- Encourages the cultural growth of children
- Involves the families of children in the Educational process
- Encourages social cohesion

III.B.2. Implement the new intervention policies for unaccompanied foreign minors to facilitate opportunities of growth and integration

The first unaccompanied foreign minors (MSNA) started to arrive in Rome as from the second half of the nineties. With the North Africa Emergency, Rome experienced enormous pressure; in 2011 the number of new arrivals doubled compared to 2010, making it necessary to open numerous new reception centers. As from 2013, Emergency Reception Centers (CPsA) were introduced, whose purpose is to give immediate protection to vulnerable people in difficulty, but also attempt to efficiently govern the spontaneous inflow of unaccompanied foreign minors. The CPsA service improved the procedures for unaccompanied foreign minors in order to better manage this sector, giving these children a chance not only to survive, but also to an opportunity of growth and integration (child-care family homes and foster care). In 2016, the Emergency Reception system was redefined pursuant to Regional Law 41/2003; this resulted in the opening of 12 specialized centers and the closure of all the so called "low threshold" centers. Pursuant to promulgation of Law 47/2017 (Zampa Law), a number

of modifications will be introduced to the identification and age verification procedures used; these are currently in the planning stage.

Department in Charge: Department of Social Policies

Partners: Regional Ombudsman for Children

Status: In progress

Period: Medium-term

SDGs: A PROGRESS PROGRES

- Encourages the cultural growth of unaccompanied foreign minors
- Ensures subsistence and assistance
- Ensures social-economic integration
- Encourages social inclusion
- Helps cultural growth





GOAL:

A. PROTECT THE ECOLOGICAL SYSTEM AND RESTORE THE VALUE OF WATER RESOURCES

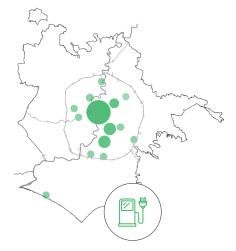
B. PROMOTE THE USE OF RENEWABLE ENERGY SOURCES

C. CREATE SUSTAINABLE MOBILITY
AND INTRODUCE SOLUTIONS
TO REDUCE POLLUTION AND
GREENHOUSE GAS EMISSIONS

D. PROMOTE A ZERO-WASTE CIRCULAR ECONOMY

PRIORITY ACTION 1:

Renew the public vehicle fleet and introduce eco-sustainable buses







Gradual replacement of the public transport fleet in the city to zero-emission vehicles. The scope of this action is to reduce air and noise pollution, greenhouse gas emissions and energy consumption caused by transport and vehicles, by renewing the fleet with environmentally sustainable buses. By 2025, the public transport fleet in Rome will include zero emission vehicles; starting from 2025, Rome will purchase only zero emission road transport fleets.

This will help improve air quality, making Rome a more sustainable and livable city, and fulfil the commitments shared with other cities under the C40 Fossil-Fuel-Free Street Declaration.

Departments in charge: Department of Mobility and Transport

Partners: In House Companies

Status: In progress. The plan for private electric mobility was approved by the City Council in October 2017. The plan for the substitution of public vehicles with 0-emission vehicles is currently being studied. The plan to structure the City of Rome for new forms of public transport (charging stations, new routes, etc.) is also currently being studied.

Period: Long-term

- Helps to reduce pollutant emissions and improves air quality
- Helps to make Rome a sustainable city
- Fulfils the commitments shared with other cities under the C40 Fossil-Fuel-Street Declaration.



FOCUS

C40 Fossil-Fuel-Free Street Declaration

Paris, London, Los Angeles, Copenhagen, Barcelona, Milan, etc.

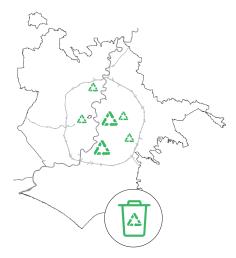


One-third of the greenhouse gas emissions in the cities of the C40 network is caused by transport and traffic; the transport sector is the main source of air pollution, which is responsible for one fourth of atmospheric particulate matter at a global level. The congestion of our roads costs to the economy on average almost 1% of the GDP. To address the problem, a network of cities, including Paris, London, Copenhagen, Barcelona, Milan, Vancouver, Seattle and Cape Town, met to accelerate the goals of the Paris climate agreement and the promises made in the context of the C40 Clean Bus Declaration. The Mayors of the cities drew up a concrete vision based on a holistic shared approach, to promote the gradual and total decarbonization of transport. In October 2017, the cities signed the C40 Fossil-Fuel-Free Street Declaration, pledging to reduce fossil fuel emissions to zero, and moving towards two main objectives: 1. purchase only zero-emission buses from 2025; and 2. guarantee that a vast area of the city is zero emission by 2030. To attain these objectives, the cities also identified a number of priority actions, including the reduction of the number of polluting vehicles and encourage people to walk or use a bicycle to get from one place to another.

PRIORITY ACTION 2:

Optimize separate waste collection of post-consumer materials





The first action of the "Plan to reduce and manage post-consumption materials" of Rome is the reduction of the total volume of waste produced in the City. The objective of the plan is to reduce waste by 200,000 tons year by 2021, with respect to the 1 million and 700,000 tons produced in 2016.

The 12 actions and 5 special projects under the plan include two actions and one special project that are considered to be priorities: 1) the "Waters of Rome" action to promote the consumption of bottle free public water; 2) the action to promote the consumption of products sold without packaging (bulk or draught); 3) the special "zero impact markets" project. The project aims to prevent wasting the unsold food in the markets of Rome. Under food regulations to combat waste, the food recovered will be donated to nonprofit organizations engaged in social work.

Departments in charge: Department of Environmental Sustainability and Department of Environmental Protection

Partners: AMA Spa, ACEA Spa

Status: In progress

Period: Separate waste collection is currently being developed; the two actions "Waters of Rome" and "Products without Packaging" are in the feasibility study phase, while the special project is in the trial commencement phase on 15 local markets.

- Helps to solve problems in the management of post-consumption materials
- · Encourages the circular economy
- · Guarantees the "chain" of materials, from introduction on the market to reuse
- Helps to make the city cleaner and more respectable



FOCUS

Bigbelly recycling program

Atlanta, USA



In November 2017, the Mayor of Atlanta, Kasim Reed, announced the start of the new program Bigbelly for waste collection in the city. Like New York, Los Angeles, Dublin and London, Atlanta accepted the commitment to reduce waste by increasing the rate of recycling and introducing innovations to its recycling system. The scope is to transform a fundamental service of the city through the use of new smart technologies. The program includes the localization of a number of double containers, for waste and recycling, in 160 locations in downtown Atlanta, in the districts of Westside and Little Five Points. There are several aims: keep the city clean, make progress with the environmental goals and, more generally, support the efforts of the smart cities. The units were purchased by creating a public-private partnership with Green City Solutions, an innovative approach to finance local program and initiatives. Bigbelly containers use solar energy and have a capacity five times greater than traditional waste containers. The units are fitted with sensors that communicate with a centralized system and send an alert when they are ready for collection and recycling. The works of local artists and messages for the community will be displayed on the front of the containers.



GOAL A:

Protect the ecological system and restore the value of the water resources

The Ecologic Network of Rome guarantees the preservation of biodiversity on a metropolitan and urban scale through continuity and a connection between green areas in the city and the natural and agricultural peri-urban areas.

The city has large public and private tree-covered and green areas, numerous parks and nature parks in the urban fabric characterized by great biodiversity, making Rome one of the Cities with the largest "green" surface area in Europe.

The existence of these areas, which are of enormous environmental value to Rome, is obviously closely linked to the presence of abundant local, surface and ground water resources. These resources, in the context of strong anthropogenic pressure, require constant supervision and monitoring, especially through campaigns to raise citizens' awareness.

IV.A.1. Implement sustainable urban forestry principles to protect biodiversity, enhance and protect parks and nature reserves

This action aims at planning redevelopment and restoration works through environmentally-friendly interventions such as better use of areas, urban forestry interventions, etc. to protect and enhance the natural heritage of the Protected Natural Areas. This allows the sustainable future of the region we live in, ensuring greater biodiversity and the recovery of farming landscape which strongly characterizes the Roman countryside. The rural environment also offers the community important resources and natural services for survival, perpetuation and quality of life. A specific regulation for the green areas and landscape of the city will also be introduced, through which uniform and organic projects will be defined in all the public and private green areas of the city.

Department in Charge: Department of Environmental Protection - Department for the Management of the Environment, Territory and Green Areas

Partners: No

Status: New

Period: Medium-term

SDGs: ¬W• •

The Value of Resilience:

- Permits standardizing and simplifying of the management of green areas
- Improves the decor of green areas
- Helps to preserve green areas in the city and the climate mitigation effect of the same
- Promotes greater permeability of the urban surface

IV.A.2. Protect and enhance local water resources

Although Rome's water supplies come mainly from sources a long way from the city, it has become very important to protect local groundwater resources, from persistent anthropogenic pressure and the increasingly frequent drought conditions experienced during the summer. In order to protect aquifers, the current number of monitoring stations will be increased and good recharging practices will be encouraged by providing incentives for improving the infiltration of rainwater into the ground; campaigns will also be organized to raise the awareness of citizens on the need to protect and preserve the land.

Department in Charge: Department of Environmental Protection

Partners: ACEA, Lazio Region, Metropolitan City of

Rome

Status: In progress

Period: Medium-term

SDGs:

| The progress | Period: |

- Makes it possible to monitor underground water resources
- Permits knowing the quantity and quality of water resources
- Raises the awareness of citizens and ensures greater supervision



GOAL B:

Promote the use of renewable energy sources

Given that the public and private buildings in Rome are, on the whole, somewhat dated or were rapidly constructed during the housing boom of the 50s, reducing energy loss in buildings and the production of renewable energy for the building industry, are challenging objectives that Rome can attain.

The energy efficiency of buildings, both in terms of heat and plant dissipation, may be attained with greater effort on the part of the Administration to ensure complete monitoring of current situation, and a case-by-case analysis of the techniques used in planning. An incentive plan will be introduced to improve utilization of densely populated areas for the production of photovoltaic and thermal energy; the basic strategic planning tool used will be the SECAP (Sustainable Energy and Climate Action Plan).

In the context of Roman housing a technological solution does exist; this is low-Enthalpy Geothermal Energy, which is still not very widely used, but no less efficient and interesting than other renewable energy sources. Thanks to the geodynamic context of Rome, it is possible to provide low cost sustainable air conditioning of homes. This is achieved by the introduction of geo-exchange systems that should be appropriately designed and installed. Technologies that are not widely used, but are still present on the market, such as small scale wind and water energy plants, will also be promoted and supported. The latter may use the water energy available on the primary (River Tiber and River Aniene) and secondary networks.

In order to complete the above works, it is of fundamental importance to ensure and facilitate collaboration between the Administration and private sector, and the ESCos (Energy Service Companies). Only a strong public-private partnership will successfully attract the investments and funds required for the above projects.

IV.B.1. Incentivize the use of renewable resources

Promoting renewable energy sources is a priority for the sustainable development of the city. The analysis of the potential of renewable sources (Solar photovoltaic energy; Solar thermal energy; Mini-hydro energy; Mini/ Micro-Wind Energy; Biomass energy; Low-Enthalpy Geothermal Energy) will be the basis for the introduction of specific actions. Each renewable source will have an objective, in terms of installed capacity in urban areas, that should be achieved by 2030 and, then, by 2050. These ambitious goals may be achieved by simplifying the administrative procedures and removing the barriers that still prevent the complete development of renewable energy sources in urban areas. A further booster may be to provide appropriate economic incentives based on the national and regional tools currently used, above all to test specific innovative uses of renewable sources in urban

Department in Charge: Department of Infrastructure Development and Urban Maintenance - Head Office

Partners: Private stakeholders

Status: In progress
Period: Short-term
SDGs:

The Value of Resilience:

- Increases energy savings
- Reduces greenhouse gas emissions
- Promotes "clean" energy use of the subsoil

IV.B.2. Introduce incentives to secure the safety and energy efficiency of private real estate property

The majority of greenhouse gas emissions and urban pollution is produced by the residential sector. Redeveloping existing buildings and energy installations will have beneficial effects both in terms of reducing greenhouse gas emissions and improving air quality. Priority should be given to measures that raise the awareness of citizens on the importance of using energy in a careful manner and those that help citizens to renew energy plants, including through economic/fiscal incentives. Energy efficiency goes hand in hand with securing the safety of housing, and above all in the case of domestic power plants, through a service that ensures regular maintenance and checks. Economic/tax incentives should be based on existing regional and national tools.

Department in Charge: Italian Government

Partners: n/a

Status: In progress
Period: Medium-term

SDGs:

- Increases energy savings
- Reduces greenhouse gas emissions
- Promotes the modernization of the private heritage

IV.B.3. Review the green credential and safety of the public structures

Interventions on public property are particularly important, since they are an example for citizens to follow. Priority will be given to recovering public structures to secure their safety and energy and water efficiency to ensure safe and comfortable environments for users. Energy and water efficiency is also a priority, particularly in terms of the cost savings that it is possible to achieve in the years after the redevelopment measures are introduced. The main tool used to implement these measures will be the update to the current Housing Regulation of the City that will regulate new buildings constructed exclusively according to bioclimatic criteria, focusing above all on materials and the NZEB (Nearly Zero Emission Buildings) concept, and providing, in the case of existing buildings, strict specifications to ensure energy savings during redevelopment works.

Department in Charge: Department of Infrastructure Development and Urban Maintenance

Partners: Metropolitan City, Region, Mise.

Status: In progress

Period: Medium-term

SDGs:

- Makes public buildings safer
- Reduces greenhouse gas emissions
- Promotes the modernization of the private heritage



GOAL C:

Create sustainable mobility and introduce solutions to reduce pollution and greenhouse gas emissions

Rome has a high rate of motorization (840 cars/1000 inhabitants) due, in part, to the high number of motor bikes. The use of sustainable methods of transport by people tends to be limited (public transport, bike, walking). The Urban Plan for Sustainable Mobility (PUMS) attempts to address and resolve these problems.

The principles of the PUMS are integration, participation, evaluation, monitoring. The PUMS is a revolution, from transport planning to sustainable mobility: one of the priorities is the need to assess the movement of people and the offer of sustainable transport methods.

The implementation of the PUMS will in time ensure the provision of different transport options and allow citizens reach their destinations; it will also improve safety; reduce air and noise pollution, greenhouse gas emissions and energy consumption; it will make the transport of people and goods more efficient and less expensive and will help to increase the attractiveness of the region and the quality of the urban environment.

IV.C.1. Develop an efficient and economic transport model for people and goods

Optimize the demand for public transport by redefining the Local Public Transport network with respect to the origin/destination matrices obtained from studies on citizen movements. Re-plan the surface lines and reconnection of the under-dimensioned parts of the city. Improve the inter-district connections and those connecting the central areas of the city.

In regards to freight logistics, the PUMS (Sustainable Urban Mobility Plan) defines a prioritised district mini-hub and metropolitan hub network, defining management methods to organize and decongest goods flows in the city, and involving public transport carriers in experimental uses (such as the use of the railway-tram network for overnight transport to the more central hubs).

Department in Charge: Department of Mobility and Transport

Partners: In-House Companies

Status: New

Period: Medium-term



The Value of Resilience:

- Helps to reduce traffic congestion
- Ensures better integration of the public and private transport network to fill the gaps in the demand of citizens with respect to the TPL offer
- Encourages the use of public transport
- Optimizes freight logistics
- Helps to reduce pollutant emissions and improves air quality

IV.C.2. Develop sustainable electric mobility plan

The 2017-2020 Rome Electric Mobility Plan defines the actions and tools to develop electric mobility in the region of Rome, and identifies the best zones/areas for the "public" electric charging infrastructure.

Develop electric mobility in the center of Rome and the suburbs: this market is open to all operators who are prepared to invest in the region; a framework of defined rules to protect the service and operators and an app that enables all citizens to apply for electric charging points in the region. The Rome Electric Mobility Plan was approved on 19 April 2018 by Resolution of the Rome Assembly.

Department in Charge: Department of Mobility and Transport

Partners: In-House Companies

Status: New

Period: Short-term



- Helps to reduce pollutant emissions and improves air quality
- Helps to make Rome a sustainable city
- Increases the percentage of electric vehicles both in the city center and suburbs

IV.C.3. Test new technologies for decreasing emissions into the atmosphere

The higher the population is in cities, the greater the pressure is on mobility, traffic, energy requirements for central heating, the polluting emissions in the atmosphere, which will cause adverse effects on the environment, health and well-being of the people. In order to improve air quality, in addition to planning new medium and long-term strategies and policies, new and efficient technologies may be used to reduce the dispersion of pollutants in air. One of the methodologies tested, that is considered to be interesting, is the APA (Abatement of Particulate in Air) that abates air pollutants in industrial, production and urban environments . The APA intervenes downstream from the polluting sources and does not create special waste. Thanks to integrated chemical-physicalmechanical processes, APA efficiently reduces atmospheric particulate (PM > 0.1 μ m), heavy metals, aromatic polycyclic hydrocarbons (PAHs), light hydrocarbons (e.g.: methane, benzene, etc.) and nitrogen and sulfur oxides (NOx, SOx).

Department in Charge: Department of Environmental Protection - Department of Waste, Abatement and Pollution

Partners: Private entities, ARPA and the Ministry of the Environment

Status: New

Period: Medium-term

SDGs: W

The Value of Resilience:

- Reduces air pollution locally
- Improves the quality of air
- Promotes testing of innovative technologies

IV.C.4. Develop the pedestrian and cycle network and sharing transport schemes

From a perspective of an integrated system of the mobility offer, short trips or those close to the destination (last mile), should be carried out with what is known as soft mobility, using a co-ordinated network for both pedestrian and cycling mobility. Incentives will therefore be introduced, such as bike-sharing and services related to this such as intermodal hubs (starting from transport interchanges) to improve access to the network, information and assistance to users, new sustainable mobility services and safety such as electrical charging stations, in order to optimize connections between districts. The scope is to integrate cycling with the community transport (in particular the Underground Railway), ensuring a strong increase of its modal share in an effort to boost all the environmental indicators.

Department in Charge: Department of Mobility and Transport

Partners: In-House Companies

Status: In progress

Period: Short-term

SDGs: _-W• , CO , ®

- Helps to reduce pollutant emissions and improves air quality
- Helps to make Rome a sustainable city
- Encourages a healthy lifestyle and increases outdoor activities
- Improves the efficiency of transport interchange



GOAL D:

Promote a zero-waste circular economy

In order to operate in the context of sustainable development as the key element for policies relating to the improvement of the quality of life, Rome has launched a number of measures to plan and manage the urban waste collection service.

The city as a whole indeed produces approximately 4,600 tonnes of waste (2016) a day. Of these, 2,000 tons consist of materials collected separately and recycled, while the remaining 2,600 tons are mixed waste. To increase the quantity collected separately, Rome has decided to adopt the principle of Circular Economy, introducing an operational Plan to reduce and manage post-consumer materials. The focus was firstly on the concept of material that may be reused several times, even for purposes other than the original scope, in order to avoid having to scrap the same.

The Circular Economy, indeed, does not speak of "waste" but of "post-consumer materials" because the goal is not only to gradually reduce the production of waste, but to optimize the use of products, extending their useful life and reducing the need for disposal

IV.D.1. Open centers for the direct processing and reuse of post-consumer materials

The plan to reduce and manage post-consumer materials (PMPC, 2017-2021) includes a number of actions to reduce the production of waste by 200,000 tons, separate waste collection by 70% and the introduction of the "quantitybased tariff", towards the goal of Zero Waste. Important technological innovations for the home waste collection system will be developed, and gradually introduced throughout the city. Municipal Waste Collection Bays will be built and, in specific cases, public and private Waste Collection Domus will be introduced; these are small separate waste collection areas for specific users. A strategic point of the PMPC will be opening of centers for Creative Reuse (CRiC), where objects will be repaired and reused in a perspective of a circular economy.

Department in Charge: Department of Environmental Protection - Department of Waste, Abatement and Pollution

Partners: Associations

Status: In progress
Period: Short-term
SDGs:

The Value of Resilience:

- Encourages the circular economy
- Raises awareness of citizens about the possibility of reusing post-consumer materials

IV.D.2. Develop sustainable waste plants

The plan to reduce and manage post-consumer materials (PMPC, 2017-2021) includes the introduction of environmentally-friendly disposal and processing plants. With regards to the effective use of food waste, several plants will be constructed in appropriate areas with a capacity for at least 120,000 tons of food waste. 100 micro-composters will be installed for community composting. A new multi-material sorting system will also be installed (metal and plastic packaging). The plant system will be a flexible and innovative one, and will be based on plants used to recover material and eco-efficient recycling.

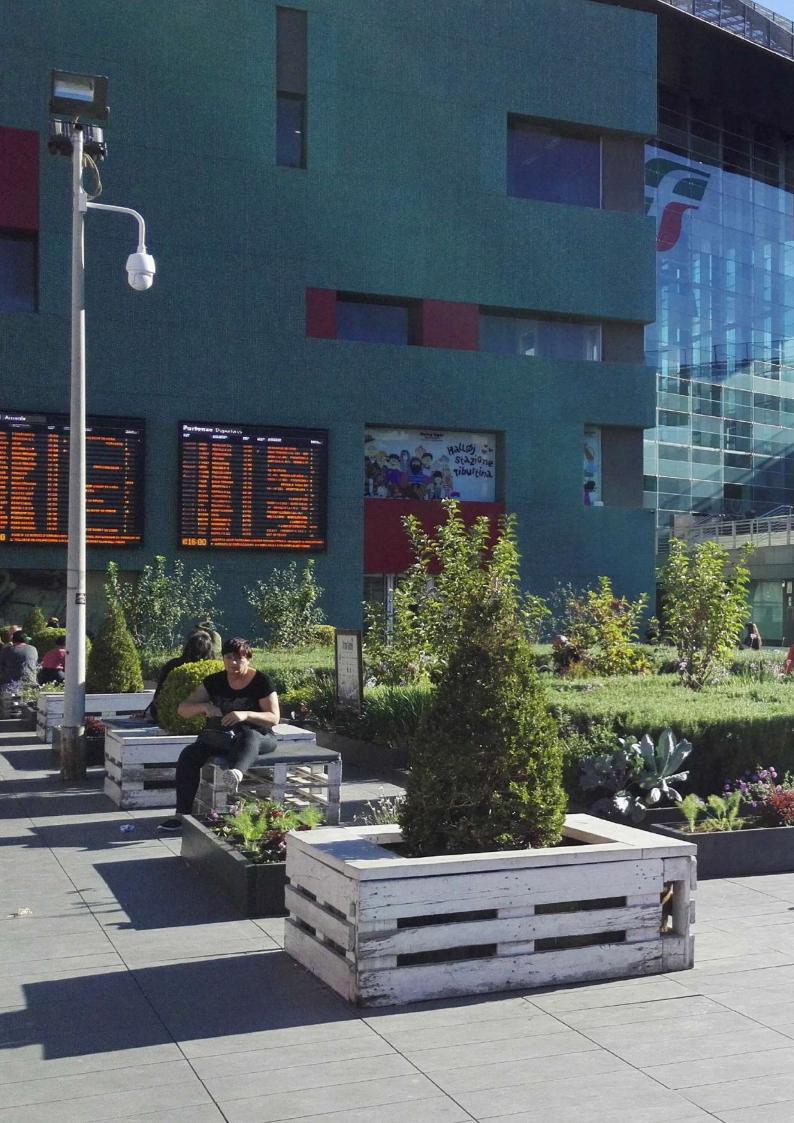
Department in Charge: Department of Environmental Protection - Department of Waste,

Abatement and Pollution

Partners: Region, AMA

Status: In progress
Period: Short-term
SDGs:

- Reduces climate changing emissions
- Promotes environmental sustainability





IMPLEMENTATION		

The role of the stakeholders

In the first phase of the resilience work the involvement of stakeholders became very important in terms of developing the Preliminary Resilience Assessment and, later, to lay the foundations for developing the Resilience Strategy.

The stakeholders who have been asked to collaborate come from different fields of city life. They include public and private stakeholders from the local or regional Administration. Often NGOs or local organizations have been involved (District Associations and Committees).

The strengths and weaknesses of Rome, and the most critical issues of the city that need to be addressed through priority actions and policies, were discussed with the above associations and committees.

In the last phase, numerous meetings were held with Councilors, and the Directors of the Departments of Rome, making it possible to focus the Strategy on goals and actions that are actually feasible. The input from stakeholders it allowed the working groups to:

- obtain multiple perspectives and approaches, in the analysis phase, and in defining the Strategy and vision of the City;
- help the CRO and the Resilience Team to clearly understand the dynamics of the city;
- plan the Strategy in an inclusive manner;
- ensure complete transparency when defining the Strategy.

It is hoped that in the future, these same stakeholders will contribute, each in their own field of expertise, the implementation of the Strategy with the same level of cooperation enjoyed to date.

Citizens and associations will continue to be involved on the question of resilience and the projects that Rome intends to pursue, through a series of participatory processes.

It will also be important to extend the involvement to other public and private Italian and international stakeholders, in order to extend the exchange of good practice and increase our knowledge of urban resilience.

Links with current Plans

Most of the actions described in this Strategy are part of plans and programs approved or with pending approval. In order to make the Strategy legible, the most important initiatives of each plan or program taken into account are described in the following pages. The fact that the actions of the Strategy are linked to the main strategies of the city, reciprocally improves implementation and the certainty to deliver the expected results in a structured and consistent manner.

The main characteristics and objectives of the plans and programs are described below, while the diagram shows the correlations with the actions of the Strategy.

DIGITAL AGENDA

The "Digital Agenda of Rome" is used as reference for the action regarding the digital transformation of the Administration and provision of services to citizens and businesses.

FABBRICA ROMA

(Rome Factory)

The plan aims at introducing a process of involving the social workforce to promote sustainable development for the capital, and build a participatory vision for the future of the city. Workshops with the administration and manufacturing companies will give the opportunity of piloting projects, customizing answers, and definitely ensuring real support to the growth of the local economy and employment.

UTILIZATION PLAN FOR ROME'S COASTLINE

(Utilization Plan for Rome's Coastline - PUA)

This is the planning and programming tool of State-owned maritime areas to regulate their utilization for tourism, in compliance with legal requirements and environmental protection. The plan is a summary of a far-reaching program of redevelopment of the Roman coastline, based on two key concepts: quality and protection.

URBAN GREENING PLAN

The plan incorporates a comprehensive regulation framework for all the public and private green areas of the city, to ensure effective and sustainable management, increase environmental and landscape value, and protect its characteristics. The plan takes into account the experiences of previous regulations and the national environmental and community regulations currently in force.

PLAN FOR THE PROMOTION OF SPORT

Sport, as a means of social and cultural integration of the city, is promoted by enhancing the public and private systems with social principles rather than economic in the allocation of municipal sports facilities. In order to promote sports for disadvantaged categories, funding is available for projects promoted by private sports clubs; in addition, the Sports Citadel, a facility of the Italian Paralympic Committee, was also inaugurated.

PLAN FOR THE REDEVELOPMENT OF THE CULTURAL SECTOR

(Operative guidelines for the management of the services provided by cultural institutions and companies of Rome)

Council Resolution 126/2016 redefines the management of the cultural sector in order to maximize synergies, protect and enhance the cultural heritage. It is the reference law, regarding the organization of cultural institutions, and will be implemented gradually, using the new reliance and concession criteria.

POST-CONSUMER MATERIALS PLAN (PMPC)

"Plan to reduce and manage the 2017-2021 post-consumer materials of Rome (PMPC)" approved with Rome Council Resolution no. 47 of 30 March 2017.

The plan is based on four important actions: prevention, reuse, separation and enhancement of post-consumer materials by developing an economy based on eco-efficient recycling and reuse of materials. By 2021 the PMPC aims at reducing the annual production of waste by 200,000 tons, increasing separate waste collection from 44% to 70%, constructing new recycling and composting plants and creating a new Ama organization based on Municipal units. This will place Rome on the path of a zero waste circular economy.

CITY SOCIAL PLAN

The engagement period to draw up the new Social Plan for citizens ended in May 2017. The plan, which should be approved in 2018, represents the action plan of the Administration of Rome for vulnerable people and covers those topics: poverty, inclusion, Roma settlements, educational and school policies, violence, disability, drug use, home, serious social exclusion, children, families, seniors. The REI (Inclusion Income set forth by Legislative Decree of 15 September 2017, no. 147, implementing the delegated law to combat poverty) will be used for the social inclusion of vulnerable communities, rather than the SIA (Support for active inclusion)

URBAN PLAN FOR SUSTAINABLE MOBILITY (PUMS)

The Urban Plan of Sustainable Mobility is a short, medium and long term strategic plan, that develops a vision for mobility. The PUMS addresses the issue of infrastructure for public transport, soft mobility, the primary road network and the distribution of goods. The PUMS promotes safety, access for all and implements technologies to improve "intelligence" between infrastructure, vehicles and people.

REGULATION FOR BUSINESS ACTIVITIES AND HANDICRAFTS IN THE HISTORIC CENTER

The Regulation introduces important changes to protect the decorum and quality of business in the center which is recognized by UNESCO as a World Heritage site, and in particular in the Municipal Districts of Rome's historic center, with a more efficient control system for the areas of greatest value.

In these areas no new businesses may be opened other than those protected, in order to rebalance the goods sectors and prevent real estate speculation.

SPECIAL OFFICE FOR THE TIBER

The "Special Office for the Tiber" was created in accordance with the Order of the Mayor no. 173 of 30/10/2017 and has important functions such as the historical-environmental enhancement of the urban section of the River Tiber, and maintenance, development and protection of the waters and banks through innovative monitoring. The Office is an organizational structure of the Administration whose functions are monitoring, control and coordination of the entities involved.

OSTIENSE MARCONI URBAN PLAN (PUOM)

The scope of the Ostiense Marconi Urban Plan is the requalification and development of the urban area as a whole. The plan includes the construction of a new road system and transport exchange at the Metro B Marconi stop, the reconnection of the urban fabric and the relationship with the River, and the restoration of abandoned properties. The plan in particular focuses on urban quality and green areas to resolve problems caused by population density and heat islands, soil and public space design to connect the different interventions.

TIBURTINO HUB PROGRAM (PHT)

The scope of the program is the strategic redevelopment of the area as a whole, bringing all the urban transport elements together in a hub, so as to rationalize and develop the system and increase the innovative aspects. The program also includes a reorganization of the functions and infrastructure of the Eastern Directional System and Tiburtina Railway Station System Districts, connecting these systematically in order to develop the Hub as an axis of development for employment, innovation and the transfer of technology, through shared processes of urban marketing.

Links with other programs

SECAP

Following the resolution of the Rome Assembly no. 78 of 14 November 2017, the City of Rome officially agreed at the Covenant of Mayors on climate and energy, accepting the ambitious commitment of reducing greenhouse gas emissions in its region by at least 40% by 2030. This commitment consists of adopting and implementing the *Sustainable Energy and Climate Action Plan* (SECAP), that the City of Rome must draw up and approve no later than 14 November 2019. The SECAP is an ambitious plan because Rome is required to analyze the balance of climate altering emissions of the waste sector and green areas, in addition to that of other obligatory sectors (mobility, residential, tertiary).

The Rome SEAP will be drawn up taking into account the strategic guidelines from the individual sectoral plans (in addition to this Strategic Resilience Plan, also the Urban Plan for Sustainable Mobility; the plan to reduce and manage post-consumer materials; and Smart City guidelines; etc.) that have a single theme in common, and will contribute to creating a new vision of Rome as a sustainable, resilient and inclusive City.

C40

Another tool used to combat climate change is the C40 network, introduced under the Compact of Mayors, of which Rome is a City Member. The network includes more than 90 leading global cities that will implement actions to reduce greenhouse gas emissions and risks related to climate change, while increasing the health, well-being and economic opportunities for citizens.

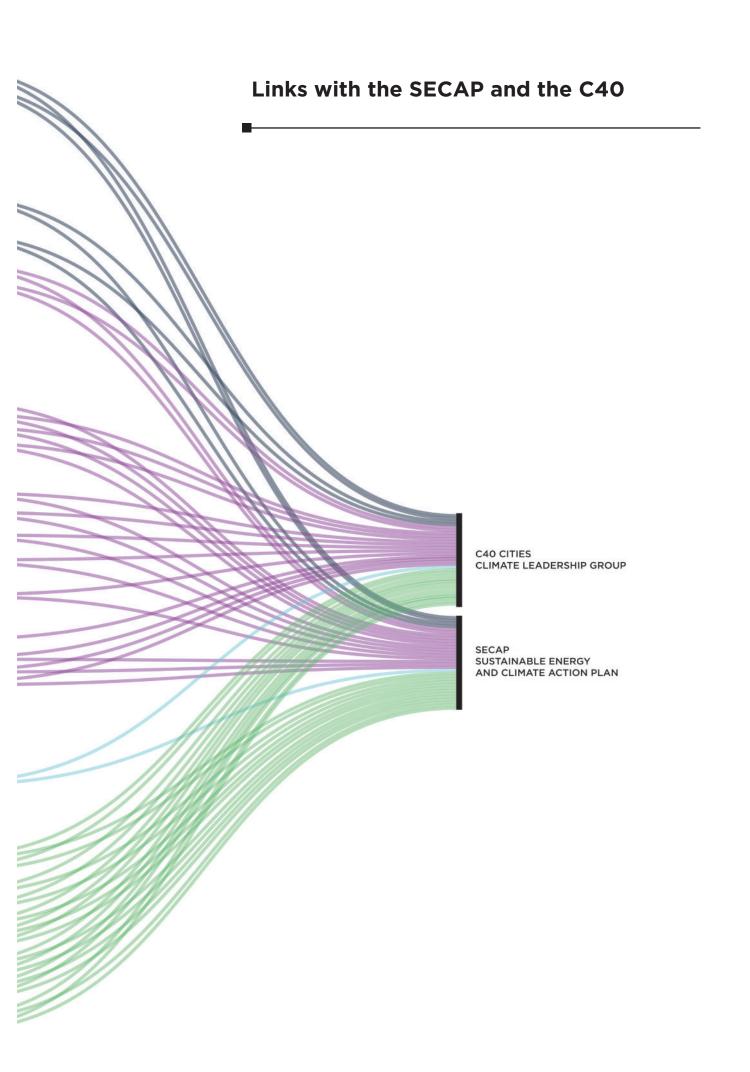
In accordance with the commitments accepted under the C40 network, a Plan for Adaptation to climate change of the city, will also be drawn up. The actions of the plan that the City of Rome intends to implement in order to make the city more resilient and less exposed to the effects of climate change, will be constantly monitored and updated.



PA.1 Create an operation and emergency management centre AN EFFICIENT PA.2 Establish a Resilience Office CITY AT THE Link the budget commitments to the three-year annual programming of the Departments activities SERVICE Reorganize the running of Departments and encourage synergies with other institutions **OF CITIZENS** Create a unique communications interface between private citizens and the Public Administration with the A. help of new technologies Establish guidelines to optimize the planning, construction and management of projects Complete the procedure for implementation of the "Rome" laws required to ensure greater governance autonomy of the region (e.g. archaeological parks, B. Create a unique geographical database, that may be updated and shared Establish a Geological Survey of Rome to unite the governance of the urban subsoil Introduce guidelines for updating the Open Data platform C. Upgrade the public Wi-Fi network and coverage Construct a Smart Grid PA.1 Govern the relaunch of the River Tiber by implementing projects coordinated by the Special Office for the Tiber A DYNAMIC, PA.2 Evaluation of the resilience potential of the regeneration of Ostiense Marconi district **STRONG** PA.3 Change the perception, use and promotion of the archaeological and cultural heritage sites AND UNIQUE in Rome for citizens' everyday life CITY Reorganize the management of the cultural sector Support stakeholders in the contemporary cultural sector in the dissemination of the cultural offer Organize seasonal programs of cultural events throughout the city Assign a new role to public libraries by organizing innovative socio-cultural programs for the local communities Start the application to list Ostia Antica as a UNESCO World Heritage Site Fashion Relaunch Plan of Rome Activate Fabbrica Roma (Rome factory), a regeneration plan for abandoned public buildings Upgrade the Building Regulations according to new housing and working needs Regenerate the Tiburtina Station and Pietralata areas B. Reorganize the network of public and private transportation to streamline the mobility system (tram lines, bus lanes, cable cars, etc.) Establish incentives to facilitate the transfer of know-how between small-medium businesses, start-ups, institutions and research centers Restore and/or reorganize the use of and access to the Roman coast by implementing the Utilization Plan for Rome's Coastline C. Implement the management reorganization of parks and historic villas by establishing a Curator who would also be responsible for planning the fundraising processes Relaunch farming companies managed by Rome D. Develop new markets for farmers to support the direct sale of produce and products ro consumers Increase food forests and urban vegetable gardens Create tourist facilities to promote youth and student tourism Plan activities to promote the attraction of urban areas by increasing the number of F cycling tracks, environmental islands and use of the public transport system Regulate businesses in the historic center in order to protect the quality of products and craftsmanship so as to preserve the identity and the propriety of the historic center Protect infrastructure and public buildings, and schools F. Create green and blue infrastructure to reduce urban heat islands G. Assess the impacts of climate change and raise awareness among citizens Create infrastructure and pilot projects to reduce the risk of flooding PA.1 Implement a program to encourage everyone into sports in order to start a process of social integration of diverse communities PA.2 Implement the new social integration program for asylum seekers and other people covered by III. AN OPEN. **INCLUSIVE** AND Implement a program to strengthen and extend the support network for vulnerable communities Establish assessment criteria to assign public spaces under concession to NGOs associations and organizations that promote social inclusion, education and sustainability **SUPPORTIVE** CITY Finalize the Public Housing Development Programs and develop new energy-efficient social housing Introduce projects for the inclusion of children in the cultural life of the city in collaboration with other institutions
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Links with current Plans DIGITAL AGENDA FABBRICA ROMA UTILISATION PLAN FOR ROME'S COASTLINE URBAN GREENING PLAN ■ PLAN FOR THE PROMOTION OF SPORT PLAN FOR THE REDEVELOPMENT OF THE CULTURAL SECTOR POST-CONSUMER MATERIALS PLAN CITY SOCIAL PLAN URBAN PLAN FOR SUSTAINABLE MOBILITY REGULATION FOR BUSINESS ACTIVITIES AND HANDICRAFTS IN THE HISTORIC CENTER SPECIAL OFFICE FOR THE TIBER OSTIENSE MARCONI URBAN PLAN TIBURTINO HUB PROGRAM

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Test new technologies for decreasing emissions into the atmosphere Develop the pedestrian and cycle network and sharing transport schemes Open centers for the direct processing and reuse of post-consumer materials D. Develop sustainable waste plants



Links with other European Programs

Rome is one of the few cities that, today, benefits from several resources at the same time to support urban resilience, including the 100RC initiative and the European project SMR - Smart Mature Resilience, under the Horizon 2020 Program (http://smr-project.eu/home/)¹.

The two projects have many points of integration, synergy and complement each other in a number of ways: where the SMR project contains a highly scientific methodological study with the involvement of leading European research institutions, the 100RC initiative offers unsurpassed networking and interchange capabilities with many cities in the world that represent many different challenges of urban resilience.

Today, Resilient Rome is a strong point of the Administration: Rome will be a unique case of great importance in the international context, in terms of the policies designed to tackle the new challenges caused by climate change and social dynamics.

The scope of the SMR is to develop tools that may improve the ability of cities to resist, absorb and adapt to the risks to which they are exposed to focusing on climate change, infrastructure and society.

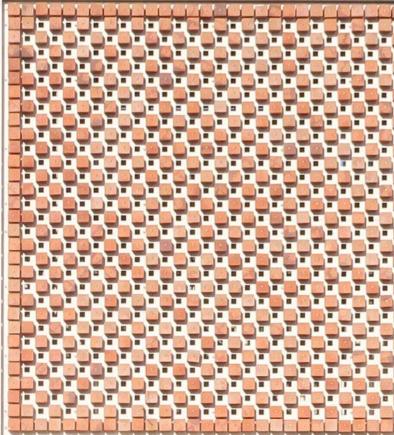
There are five tools to improve the resilience in the SMR: 1. The Resilience Maturity Model, a methodological approach to define the degree of resilience attained by cities, based on objective, measurable and comparable parameters; 2. Systemic Risk Assessment: a tool for assessing the exposure to different types of risks faced by the city. The actual cause-effect relationships and interdependence of the different types of risks are examined Portfolio of Resilience Building Policies, i.e. a portfolio of policies capable of taking the city towards higher levels of resilience; 4. System Dynamics Model, a model for assessing and increasing urban resilience. This is used as basis to establish an Urban Resilience Office: 5. The Resilience Engagement and Communication Tool, i.e. a tool to encourage active participation of the local communities in the application process of urban resilience policies: it is now crucially important to create a permanent interdisciplinary inter-department round table to ensure cooperation and community growth to manage urban resilience in Rome. This was confirmed quite clearly during the local meetings, with the different Departments and Offices of the Administration of Rome (Civil Protection, Mobility, Infrastructure, Heritage, Environment, Urban Planning, Social Policies, Culture), with the private stakeholders and civil society involved.



The expected final result of the project complies in full with the 100RC initiative, i.e. that of laying the basis to create a special Urban Resilience Office, which coordinates the resilience policies, involving all the stakeholders, from European and national institutions to local institutions, including the Departments and Offices of Rome, the private sector, the Citizen Associations and civil society.

¹The partners of the SMR: 1. University of Navarra, TECNUN, San Sebastian - Spain (steering committee); 2. CIEM (Center for Integrated Emergency Management), Agder University - UiA, - Norway; 3. Strathclyde University, Glasgow - United Kingdom; 4. Linköping University - Sweden; 5. International Council for Local Environmental Initiatives - ICLEI; 6. DIN German Institute of Standardization - Germany; 7. City of Kristiansand (Norway); 8. City of Donostia - San Sebastian (Spain), 9. City of Glasgow (United Kingdom); 10. City of Bristol (United Kingdom); 11. City of Vejle (Denmark); 12. City of Riga (Latvia); 13. City of Rome.









Monitoring

The management and monitoring of the implementation process of the Resilience Strategy, are closely related. The Resilience Office will undoubtedly monitor the implementation of the Strategy through the pillars, goals and actions.

The Sustainable Development Goals of the United Nations are another monitoring process implemented by the City and are another tool chosen by Resilience Team to help the Resilience Office implement the strategy. Each action of the Strategy is linked to one or more of the 17 Goals in order to better understand the relationships.

Finally, the Resilience Office will assess whether it is possible to use the City Resilience Index (CRI) to measure its resilience performance. The CRI consists of 156 quantitative and qualitative indicators.

Sustainable Development Goals (SDGs)

In September 2015, the Governments of 193 member Countries of the United Nations Organization signed the 2030 Agenda for Sustainable Development. This is an action program designed for the prosperity of people and the planet. This extensive program also includes 17 Sustainable Development Goals - that originate from the results of previous MDGs (Millennium Development Goals) and are the common goals of a number of key development issues.



Life below water

Life on land

Peace, justice and strong institutions



Climate action





THE NEXT STEPS

The next steps

The enthusiasm that all the Departments of Rome and the stakeholders have demonstrated in this Resilience Strategy, is all the encouragement we need to continue the Project and look forward with confidence to the possibility of having a more Resilient City in the near future.

After completing phase one of the project it became quite clear that Resilience should be extended to all the areas that affect the life of a city and its citizens: from governance to urban regeneration, from social policies for culture and adaptation to climate change to security, the environment and transport.

Accordingly, in phase two of the project when the Strategy was defined, under the coordination of the Councilor for Urban Planning, the Director-General of Rome was appointed as the new CRO to emphasize the far-reaching nature of Resilience and the need for strong and efficient coordination.

Thanks to this new CRO, who was in a neutral position with respect to the political and administrative bodies, it was possible to work very successfully with all the Regional Council Offices and Municipal Departments, to share a Strategy that will certainly have a positive impact on the city.

In order to implement the Strategy, a Resilience Office, which reports to the Head Office will be created according to the above criteria. The Office will work closely with the Steering Committee and the Heads of Department of the city of Rome.

The Office will be responsible for:

- monitoring and updating the Resilience Strategy;
- promoting a culture of resilience;
- supporting the creation of a network of entities and stakeholders who work in the field of resilience to promote good practices;
- finding public and private funding to implement actions that make Rome stronger and more resilient.





ACKNOWLEDGEMENTS

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Mayor

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Luca Montuori

Deputy Mayor for Urban Planning

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Rome CRO Phase 1

Photos by: Francesca Cozzi





Affiliated Companies

The affiliated companies directly or indirectly controlled by Rome have been analyzed in the last period to reorganize and simplify the structure, reducing the costs of the system. This process was completed in March 2017 when the Reorganization Plan, which includes a reduction of the number of companies from 31 to 11 by 2021, was approved.

Pending the implementation of the plan, and when the Resiliency Strategy report was drawn up, the structure of affiliated companies of Rome was the following:

SUBSIDIARY COMPANIES - LOCAL PUBLIC SERVICES

- 1. AMA S.p.A- One of the main objectives of this company, which deals with waste management and environmental restoration, is to make Rome as independent as possible in the management of post consumer materials, using different measures to introduce environmentally-friendly disposal and waste collection plants in the region, and the introduction of innovative projects applied, above all, to the door-to-door waste collection system (100%).
- 2. ATAC S.p.A A Company that deals with Local Public Transport Services. THE Company has implemented a very strict Solvency Plan in an attempt to reduce its costs; the Company is however concentrating its resources in the renewal of its machinery fleet, with the focus on sustainable mobility (100%).

SUBSIDIARY COMPANIES - SERVICES

- 3. AEQUA ROMA S.p.A In application of the Reorganization Plan for the affiliated companies, the company is organizing itself to concentrate the management of revenues from real estate and local taxes in a single company, thus streamlining management and ensuring a saving. (100%).
- 4. RISORSE PER ROMA S.p.A This is the company that provided the Working Team for the 100RC project in Rome; the Company provides assistance and support to the Administration of Rome for planning, urban and territorial transformation, valuation and sale of real estate property and support for the management of amnesty for infringement of building regulations(100%).
- 5. ROMA METROPOLITANE S.r.I The Company provides services for the planning, construction, enlargement, extension and modernization of all the underground lines in Rome. With the introduction of the Reorganization Plan, the Company will deal only with Line C of the Underground (100%).

- 6. ROMA SERVIZI PER LA MOBILITA' S.r.I The Company provides mobility services: sustainable mobility policies; planning and design of networks, infrastructure, services, control and monitoring of private and public transport (with the application of the Reorganization Plan this will include all the Underground lines, other than Line C), the Local Public Transport services and supplementary services of the same. The most innovative projects of the Company include the planning of the GRAB (Great Ring Road for Bicycles); the public Rome Car Sharing system and electric recharging points, with the aim of covering by 2020 roughly half the total requirement, estimated to be 700 electric recharging columns (100%).
- 7. ZèTEMA PROGETTO CULTURA S.r.l This company manages cultural and tourist services, plans events, and develops cultural policies for the preservation and enhancement of the art and monument heritage (100%).

LISTED AFFILIATED COMPANY

8. ACEA S.p.A - a multiservice company that manages and develops water, energy and the environmental networks and services. The Company is currently preparing an important plan for works on the water networks, in order to make them more efficient and reduce water leakages that are currently about 44% (51%).

MINORITY INTERESTS

- 9. CENTRO AGROALIMENTARE ROMA S.c.p.A Planning and management of the wholesale Agrifood market (28.37%).
- 10. INVESTIMENTI S.p.A Creation, organization and management of the trade fair system of the Capital (21.762%).
- 11. EUR S.p.A Preservation and protection of the historical, artistic and landscape heritage, with leased regenerated spaces, through the Property Management. Asset Management through major real estate development and urban enhancement projects (10%).
- 12. CENTRALE DEL LATTE DI ROMA S.p.A Production and marketing of milk and dairy products (6.72%).
- 13. ACEA ATO2 S.p.A The company manages the integrated water service in Rome and Municipal Districts of the province (3.53%).
- 14. AEROPORTI DI ROMA S.p.A The Company manages Rome's airport system (1.329%).















