Dear friends of Madrid,

It is a great pleasure to present Madrid’s Voluntary Local Review (VLR) 2023 publication to the United Nations, directly reporting on our city’s progress towards the Sustainable Development Goals (SDGs). The VLR methodology has become a common language for communicating city policies and projects to global audiences.

Cities cannot be disconnected from global challenges because we experience their impact daily in every street and neighbourhood. Thus, it is our duty to tackle these challenges at a local level, the most effective way to do so.

Madrid is fulfilling the SDGs through our own localisation scheme portrayed in our Localisation Strategy, which was approved in 2021 following the unanimous request of the Plenary of the Madrid City Council. It resulted in a rich agenda based on indicators and statistics that address the environmental, economic, and social challenges of Madrid, and that is therefore directly connected to the Operational Government Program of the city, in which every planned action of a city department is immediately linked to the SDGs they contribute to fulfilling.

As a result, Madrid’s SDGs agenda is a thorough exercise of adapting global challenges to our reality and capacities as a municipality. Two annual monitoring reports of the Localisation Strategy have already been produced as new statistics become available each year.

While these scheduled annual reports inform the Madrid citizens about our progress concerning the political commitment of city officials, the VLR report also aims to assume responsibility and demonstrate a pledge towards the United Nations and fellow citizens worldwide who are also pursuing progress on the SDGs.

This document highlights Madrid’s progress within the frameworks of both the New Urban Agenda and the European Urban Agenda, which we are eager to share with local authorities and civil society worldwide. We learn from each other and find inspiration in each other. You can count on Madrid to collaborate to build better, brighter cities and a more united world.

Sincerely,

Begoña Villacís Sánchez
Vice Mayor of Madrid
FOREWORD BY THE COUNCILLOR

Dear friends,

Madrid is a global city, well-known in all multilateral networks and initiatives. Over the years, we have partnered with United Nations agencies to broaden the scope of this dialogue and collaboration, focusing on urban and global sustainability. We believe that the subnational perspective, specifically the perspective of cities, must be heard.

More sustainable cities mean a better world in the context of growing urbanisation. Finding solutions to global challenges is the responsibility of every local government, and it involves implementing and reporting the localisation of the SDGs in a manner that other territories and actors can understand and take advantage of good practices. This document is about showcasing our experience and sharing our accumulated knowledge.

Presenting this Voluntary Local Report is a further step in our international commitment to the global sustainability agenda. It is also an additional stimulus to work for a safer, healthier, more inclusive, and more liveable city. The Report is based on the 104 targets and 160 indicators of the Localisation Strategy for the Sustainable Development Goals of the 2030 Agenda in the City of Madrid, showcasing Madrid’s progress towards the SDGs.

This Report has been enriched by incorporating the Global Urban Monitoring Framework, that was developed by UN-Habitat with the support of the city of Madrid and approved by the United Nations Statistical Commission.

The development of a global monitoring framework helps to streamline and consolidate the VLRs. It helps harmonise urban monitoring and lower the barrier for many cities wishing to follow their SDG localisation path. Madrid’s long-standing experience in city diplomacy and cooperation is strengthened by joining reporting efforts and sustainability actions with other territories that have submitted their VLR.

The VLR becomes a key document to keep this momentum of collaboration between cities that speak a common language while scaling solutions to their citizens and territory. Nature-based solutions, digital and smart city infrastructures and services, faster and cleaner transportation, green, circular and climate-neutral economy, and equal rights and access to jobs are some of the topics that cities are discussing, sharing, and implementing daily.
Working together is a natural evolution as the 2030 Agenda recognises the essential role of local authorities in achieving the goals. Monitoring progress and sharing it with the United Nations and the world is proof of commitment and a boost to improve every city’s capacity towards a sustainable and equitable future.

Madrid has followed its path for the localisation of SDGs but has also considered the experiences of partner cities worldwide to complete this task. We are grateful to all of them and proud of the work done. We encourage other cities and stakeholders to find ways to express their contribution to a better world. Please count on our city, our dialogue spaces, and our experience for this shared goal. We will be happy to work together and be enriched by doing so.

Finally, we extend our gratitude to everyone who has made this document possible, including our team at the Madrid City Council, all the cities and city networks we have worked with, and the many stakeholders who have contributed along the way.

Wishing you all the best from Madrid,

Santiago Saura Martínez de Toda
Councillor for Internationalization and Cooperation
Madrid City Council
Acknowledgements and credits

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<th>ACRONYMS</th>
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<tbody>
<tr>
<td>ASEAN - Association of Southeast Asian Nations</td>
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<td>BMI - Body Mass Index</td>
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<td>C40 - C40 Cities Climate Leadership Group</td>
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<td>ERDF - European Regional Development Fund</td>
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<td>ESCAP – Economic and Social Commission for Asia and the Pacific</td>
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<td>EU - European Union</td>
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<td>FEMP - Federación Española de Municipios y Provincias</td>
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<td>FUA – Functional Urban Area</td>
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<td>GDP - Gross Domestic Product</td>
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<td>GOP - Government Operational Programme</td>
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<td>GUMF – Global Urban Monitoring Framework</td>
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<td>HLPF – High-Level Political Forum</td>
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<td>IAS - Invasive Alien Species</td>
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<td>INE - Instituto Nacional de Estadística (Spanish Statistical Office)</td>
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<td>JRC – Joint Research Centre</td>
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<td>MDGs – Millennium Development Goals</td>
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<td>MNN - Madrid Nuevo Norte</td>
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<td>NEET - Not in Education, Employment, or Training</td>
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<td>NEPAD - New Partnership for Africa's Development</td>
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<td>NGA - Next Generation Access</td>
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<td>OECD – Organisation for Economic Cooperation and Development</td>
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<td>OEPM - Oficina Española de Patentes y Marcas (Spanish Patent and Trademark Office)</td>
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<td>PV - Photo-voltaic</td>
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<td>REDS - Red Española para el Desarrollo Sostenible</td>
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<td>RMI - Regional Minimum Income</td>
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<td>RUMI - Registro Unificado de Maltrato Infantil (Unified Register of Child Abuse)</td>
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<td>SDGs – Sustainable Development Goals</td>
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<td>SDSN – Sustainable Development Solutions Network</td>
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<td>STIs - Sexually Transmitted Infections</td>
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<td>SUDS - Sustainable Urban Drainage Systems</td>
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<td>U20 – Urban 20</td>
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<td>UAEU - Urban Agenda for the European Union</td>
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<td>UCLG – United Cities and Local Governments</td>
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<td>UIRC - International Urban and Regional Cooperation Programme</td>
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<td>UNDESA – United Nations Department of Economic and Social Affairs</td>
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<td>UNDP – United Nations Development Programme</td>
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<td>UNECA – United Nations Economic Commission for Africa</td>
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<td>UNECE – United Nations Economic Commission for Europe</td>
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<td>UNESCO – United Nations Educational, Scientific and Cultural Organization</td>
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<td>UN-Habitat – United Nations Human Settlements Programme</td>
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<td>VLR – Voluntary Local Review</td>
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<td>VNR – Voluntary National Review</td>
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ABSTRACT

The Madrid Voluntary Local Review (VLR) is an evidence-based report that aims to review the city’s efforts in achieving the 2030 Agenda for Sustainable Development. The VLR is a comprehensive and transparent document that promotes concrete action and collaboration towards implementing the Sustainable Development Goals (SDGs). Madrid is one of the first cities to apply the Global Urban Monitoring Framework (GUMF), endorsed by the United Nations Statistical Commission.

The Madrid City Council presents its first Voluntary Local Review to the United Nations on the status of the objectives in 2023 as a renewed commitment towards multilevel and multi-stakeholder approaches to advance on achieving the SDGs at the local and global levels. The review has a dual focus: first, it concentrates on achieving the SDGs at the local level by promoting policy coherence, developing capacities at the municipal level suitable for further elaboration of evidence-based policies, and enhancing the participation of various actors in the city. Second, it is a tool to highlight the capacity of governments and local actors to contribute to achieving the SDGs on the national, regional, and global levels.
INTRODUCTION

The 2030 Agenda for Sustainable Development, along with its Sustainable Development Goals (SDGs), provides a comprehensive framework that encompasses various aspects of urban development while explicitly recognising the significance of cities through the standalone SDG11, Sustainable Cities and Communities.

The New Urban Agenda further reaffirms our global commitment to sustainable urban development, recognising it as a vital step in realising sustainable development globally, regionally, nationally, sub-nationally, and locally, involving all relevant actors. Implementing the New Urban Agenda is essential for localising the 2030 Agenda for Sustainable Development and achieving all SDGs and targets, including Goal 11.

Numerous global cities acknowledge the importance of achieving the SDGs and are aligning their strategies and localising the 2030 Agenda while monitoring its targets through the elaboration of Voluntary Local Reviews (VLRs).

The city of Madrid sets a global example of how global agendas are being translated into local commitments for sustainable development in a multi-stakeholder, multidimensional, and integrated approach that is fully coordinated with European and national plans.

In 2016, the Madrid City Council began developing its SDG Localisation Strategy, which was unanimously adopted in 2019. This institutionalised the initial city government’s commitment to ensure the continuity of the localisation process in the city while concentrating its efforts on a multidimensional approach to achieve the SDGs.

The SDG Localisation Strategy strives to ensure maximum coherence with the municipal planning and budget for 2019-2023. It integrates the monitoring framework for implementing the SDG Localisation Strategy with the Government Operational Programme (GOP) 2019-2023. Furthermore, it includes medium and long-term public investment opportunities for the city, considering other levels of administration (European, national, and regional), especially after the Covid-19 pandemic outbreak and the establishment of European recovery funds (Next Generation EU) as well as the European Union Multiannual Financial Framework 2021-2027.

In September 2022, the Madrid Urban Agenda and its action plan were approved. Their design was based on the Spanish Urban Agenda, aligned with the New Urban Agenda and the Urban Agenda for the European Union (UAEU). They provided the strategic policy, implementation, and monitoring framework to receive and implement European Union and Spanish urban-targeted funding up to 2030.

The SDG Localisation strategy in Madrid considers the VLRs a reporting and transparency milestone that reinforces the localisation process. The city aims not only to implement global agendas at the local level, but also to support their implementation globally by developing VLR reporting guidelines. This involves creating common and harmonised monitoring frameworks at the local level, facilitating benchmarking for city cooperation and integration of the VLRs into the Voluntary National Reviews (VNRs). Specific attention is paid to monitoring tools and data, and this first VLR is grounded on applying global and EU-endorsed monitoring frameworks and methodologies.
Indeed, the City of Madrid, under the framework of the collaboration agreement with UN-Habitat, provided financial and technical support for the development of the Global Urban Monitoring Framework (GUMF), including the Global Definition of Cities, which was endorsed by the United Nations Statistical Commission.

The GUMF harmonises existing urban indices and tools, providing a universal framework for tracking the performance of urban SDGs and the New Urban Agenda. The Global Definition of Cities enables data comparison across scales and functional urban areas. Madrid is one of the first cities to pilot this monitoring tool and the first capital city to apply the GUMF to its VLR.

More broadly, the main purpose of this multidimensional integrated exercise in the Madrid VLR 2023 is to bolster the long-term transformative impact of public policies in Madrid.

The analysis published in this VRL indicates a positive trend in most of the localisation efforts towards the SDGs. By assessing the impact on the city of Madrid and the Madrid Functional Urban Area, as proposed by the Global Urban Monitoring Framework, it is possible to observe the impact of public policies on a territory with over 6.7 million inhabitants.

The need for inter-municipal collaboration to implement coherent territorial plans and projects is more apparent than ever, particularly when it comes to increasing inclusiveness, equality, accessibility, and effective climate action.

The Madrid Voluntary Local Review 2023 is a pioneer in presenting two case studies and incorporating the concept of impact, reflecting the multi-stakeholder dimension of the Localisation Strategy. These two contributions unfold other opportunities for VLRs in the coming years.

The first focus is on the territorial dimension of the localisation process by incorporating Madrid Nuevo Norte, the largest urban redevelopment operation in the city and in the European Union. The second focus is Madrid’s Roadmap to Climate Neutrality by 2050. The Roadmap is the latest step in a series of policy initiatives that the city of Madrid has taken over the past 15 years. Additionally, the Roadmap acknowledges a direct policy link with the requirements and expected results of the Paris Climate Agreement and the European Green Deal.

In conclusion, Madrid has aligned all its public policy frameworks, investments, and monitoring efforts with the 2030 Agenda, the New Urban Agenda, the climate action and decarbonisation roadmap to 2050, and the new context of the post-Covid-19 recovery plans.

Finally, the defining element of this first Madrid VLR is the multi-stakeholder engagement. As SDG17 emphasises, the 2030 Agenda vision can only be realised with strong partnerships and cooperation. The multilevel and multi-stakeholder collaboration in implementing the Madrid Localisation Strategy is critical to collectively addressing global challenges.

The Madrid VLR 2023 is a key document to update and follow up on the Localisation Strategy. More importantly, the long-term, transformational plan that the Madrid City Council has put in place, including the Madrid Urban Agenda. It is published with the intention to be updated in subsequent years and to consolidate its function as an engagement instrument rather than just a mere monitoring tool.

Understanding impact helps to improve, reinforce, and boost transformative public policies. It should also contribute to informing Madrid’s citizens on how we can collectively and systematically advance in achieving common and shared objectives. Submitting this review enlarges our view, reinforces our local work, and consolidates our global action.
CHAPTER 1
Global, European, and Spanish Context for Localising the 2030 Agenda and Developing Voluntary Local Reviews
In September 2015, the United Nations General Assembly adopted the **2030 Agenda for Sustainable Development**, a “plan of action for people, planet and prosperity” to achieve a sustainable future for all. This Agenda, which all countries and stakeholders must implement in collaborative partnership, includes 17 Sustainable Development Goals (SDGs) and 169 targets to promote action over the next 15 years. The 2030 Agenda builds on the Millennium Development Goals (MDGs) and is committed to achieving universal and transformative sustainable development through three indivisible and integrated dimensions: economic, social, and environmental (United Nations, 2015).

In addition to supporting the 2030 Agenda, the United Nations Member States committed to other significant agreements. These include the **Paris Agreement** signed in December 2015 (United Nations Framework Convention on Climate Change, 2015); the **Sendai Framework for Disaster Risk Reduction 2015-2030**, adopted in March 2015 (United Nations Office for Disaster Risk Reduction (UNISDR), 2015), and the **Addis Ababa Action Agenda on Financing for Development** adopted in July 2015, which outlines a shared vision and an action-oriented framework for sustainable urban and territorial development (United Nations, 2015). Leaders and stakeholders acknowledged the importance of the local dimension in global development in a world where, as former United Nations Secretary-General Ban Ki-moon stated, “the battle for global sustainability will be won or lost in cities” (Ki-moon, 2012).

Two major achievements exemplified this historic acknowledgement of the crucial role of subnational and local authorities. First, the inclusion of a standalone goal on sustainable urbanisation (SDG11 on Sustainable Cities and Communities) in the 2030 Agenda. Second, the explicit reference to the contribution of the New Urban Agenda to the localisation of the 2030 Agenda in an integrated manner (United Nations, 2016, paragraph 9).

After years of advocacy efforts of international networks of local and regional governments in multilateral spaces, a concerted and coordinated platform created in 2013, the Global Taskforce of Local and Regional Governments, was vital to the success of both achievements. The Global Taskforce defines localisation as “the process of taking into account subnational contexts in the achievement of the 2030 Agenda, from the setting of goals and targets, to determine the means of implementation and using indicators to measure and monitor progress”. It relates both to “how local and

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3. The Global Taskforce of Local and Regional Governments, a coordination and consultation mechanism that brings together the major international networks of local governments, was set up in 2013 to bring the perspectives of local and regional governments to the SDGs, climate change agenda and the New Urban Agenda in particular. See [https://www.global-taskforce.org/](https://www.global-taskforce.org/)
regional governments can support the achievement of the SDGs through action from the bottom up and how the SDGs can provide a framework for local development policy” (Global Taskforce of Local and Regional Governments, 2016, p. 6).

National, subnational, and local governments started to implement the New Urban Agenda as an accelerator for achieving the SDGs, further contributing to the international recognition of the pivotal role of local and regional governments in sustainable development. The United Nations System, multilateral organisations, academia, and civil society stakeholders were also enhancing their partnerships and engagement in accelerating global sustainability at the local level.

In 2020, António Guterres, the United Nations Secretary-General since 2017, called on all sectors of society to mobilise for a Decade of Action on a global, local and people level, “maximising the potential of cities and local authorities” in making progress (United Nations, 2019).

As part of the increasing efforts to accelerate the “localisation” of the SDGs, the Local2030 Coalition, a United Nations-led platform and network, was launched, designed to support and expedite local-level delivery of the 2030 Agenda for Sustainable Development by co-creating and harnessing actions to achieve local-level progress on the SDGs.

In 2020, a seminal report of the Organisation for Economic Cooperation and Development (OECD) stated that 65 per cent of the 169 targets underlying the 17 SDGs would not be reached without proper engagement and coordination with local and regional governments (OECD, 2020).

Localisation of the SDGs as a Pathway for the Global Post-Covid-19 Recovery

“In a world in crisis, rescuing the Sustainable Development Goals is more important than ever. The 2030 Agenda remains our clearest pathway forward. We must rise higher and stay true to our promise of a world of peace, dignity and prosperity on a healthy planet.” Remarks of the United Nations Secretary-General, António Guterres, to the ECOSOC (United Nations, 2022)

The Covid-19 pandemic that started in early 2020 has led to health, social and economic crises, significantly affecting the progress and achievement of the SDGs. According to the Sustainable Development Report 2022, the world stopped progressing on the SDGs between 2019 and 2021. This setback is especially alarming because, before the pandemic, the world was progressing on the SDGs at a rate of 0.5 points per year from 2015 to 2019, which was already too slow to meet the 2030 deadline.

The report also highlights that poorer countries made more significant gains than richer countries during that period. Restoring and accelerating the SDGs progress in all countries, including the poorest and most vulnerable, should be a major priority of recovery plans and reforms to the international development finance systems in the next few years (Sachs, Lafortune, Kroll, Fuller, & Woelm, 2022, p. vii).

The 2022 High-Level Political Forum (HLPF) called for achieving the SDGs by rebuilding differently and better. Member States were urged to break the vicious circle and pursue a more inclusive and sustainable recovery strategy for the pandemic, introducing transformative reforms while fully implementing the 2030 Agenda for Sustainable Development as the overarching framework for recovery and building back better (United Nations, 2022).
According to an OECD survey, cities and territories are leading the effort in using the SDGs as a policymaking tool. About 40 per cent of local and regional governments were already using the SDGs before the pandemic and started using them to shape their recovery strategies. In comparison, 44 per cent had not used the SDGs before but are planning to do so now (OECD, 2022, p. 8).

The role of cities and local governments is as relevant as ever on the multilateral scale and at the implementation level, as cities across the globe were tested to the extreme as the frontline public administrations handling the pandemic’s complex dimensions. The Covid-19 pandemic highlighted the importance of well-planned and managed cities in their ability to function, especially during times of crisis.

Local and regional governments have advocated for years that addressing all the global agendas as one is essential for localisation to take place and for harnessing the New Urban Agenda’s acceleration potential to achieve the SDGs, which is the only way the climate and resilience agenda will take place (Global Taskforce of Local and Regional Governments, n.d.).

In September 2021, United Nations Secretary-General António Guterres proposed a post-Covid-19 “Common Agenda”, stressing the need for more systematic engagement with sub-national authorities. He urged local and regional governments to use the recovery from the pandemic to accelerate investment and implementation in sustainability through clean, green infrastructure and transport systems, among others. He also reinforced multilateral spaces for local voices by creating a “new Advisory Group on Local and Regional Government” (United Nations, 2021, p. 75).

In June 2021, the official communiqué from Urban 20 (U20) called on the Group of Twenty (G20) to empower cities to ensure a green and just recovery (Urban 20, 2021). A few months later, in October 2021, the G20 Rome Leaders’ Declaration acknowledged the significance of SDGs localisation in the recovery response and the acceleration of sustainable development, reaffirming their commitment to the SDGs and stating, “We reaffirm our commitment to a global response to accelerate progress on the implementation of the SDGs and to support a sustainable, inclusive and resilient recovery across the world” (G20, 2021, p. 4).

The High-Level Meeting on the Implementation of the New Urban Agenda held in New York in April 2022, and the second “Quadrennial report of the Secretary-General on progress in the implementation of the New Urban Agenda” published in March 2022, further underscored the potential of cities in anchoring “the pandemic recovery in social justice, delivering on the Decade of Action, and ensuring effective climate action” (United Nations, 2022).

The post-Covid-19 scenario is strengthening the localisation of the SDGs as one of the main action agendas for recovery, the transition to net-zero emissions, and achieving global sustainable development.

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4 Urban 20 (U20) is a city diplomacy initiative that brings together cities from G20 member states to discuss global economic, climate, and development issues. The cities work together to form a common position and issue recommendations to the G20 presidency and Heads of State, enhancing the role of cities as global economic and political leaders. The U20 initiative is permanently convened by C40 Cities and United Cities and Local Governments (UCLG) and led by a chair city that rotates annually. Madrid is an active member of Urban 20.

5 The G20 is an intergovernmental forum that includes the world’s 19 largest economies and the European Union. The member countries are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, the Republic of Korea, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, and the United States. Additionally, each year, the G20’s invites Spain, the Chair of the Association of Southeast Asian Nations (ASEAN), the Chair of the African Union, and a representative of the New Partnership for Africa’s Development (NEPAD) as guests.
The European SDGs Review Framework and the European Urban Agenda

Since the approval of the 2030 Agenda, the European Union has been fully committed to playing an active role in mainstreaming the SDGs into EU policies and programmes and supporting EU member states in implementing the SDGs at the national and sub-national levels.

In 2016, the European Commission adopted the “Communication on Next steps for a sustainable European future. European action for sustainability” (COM/2016/0739), which presented the strategic approach towards the implementation of the United Nations 2030 Agenda and the SDGs (European Commission, 2016). In January 2019, a reflection paper, “Towards a sustainable Europe by 2030” (COM/2019/22) was published. At the end of the same year, a European Green Deal was set out as “an integral part” of the “Commission’s strategy to implement the United Nation’s 2030 Agenda and the sustainable development goals” (COM/2019/640) (European Commission, 2020).

In November 2020, a Commission Staff Working Document ‘Delivering on the UN’s Sustainable Development Goals’ was also published to explain “how the European Commission is taking forward its commitment to sustainable development, the 2030 Agenda and the SDGs through its internal and external action policies, while also monitoring progress at Member State and European Union levels” (European Commission, 2020, p. 2).

In all these documents, the European Commission stresses the need to ensure policy coherence for sustainable development, “taking into account the impact of all policies on sustainable development at all levels” and applying a holistic and cross-sector policy approach, “which needs to be pursued in partnership with all stakeholders and on all levels”. “Policy coherence for sustainable development includes promoting a whole-of-government approach and ensuring political oversight and coordination efforts across government and at all levels, from global to local, for SDG implementation, taking into account the interlinkages between the SDGs” (European Commission, 2020, p. 11).

The Covid-19 pandemic reinforced the EU’s commitment to the global agendas and the long-term transformation committed to achieving the SDGs, the New Urban Agenda, and the Paris Agreement. In December 2020, the European Council adopted a long-term EU budget for the period 2021-2027. This budget, together with the NextGenerationEU recovery instrument, is an unprecedented response to repairing the economic and social damage caused by the Covid-19 pandemic and aiding the transition towards a more sustainable Europe.

The Next Generation EU, the temporary instrument designed to boost the European Union’s recovery with an investment of €806.9 billion, is closely aligned with the SDGs, ranging from support to research and innovation, fair climate and digital transitions, to preparedness, recovery and resilience.

In terms of implementing the New Urban Agenda, the EU member states are among the leading advocates of the role of cities in achieving the SDGs. The EU officially approved the Urban Agenda for the European Union (UAEU) in May 2016 during the Dutch EU Presidency. The EU ministers responsible for urban matters adopted a political agreement setting out the principles and approach for implementing the UAEU, the Pact of Amsterdam. The main goal of the Pact is to “contribute to the implementation of the 2030 Agenda for Sustainable Development and the global New Urban Agenda” with a multilevel, integrated, multi-stakeholder and place-based approach (European Commission, 2016, p.6).

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6 This figure is in current prices. It amounts to €750 billion in 2018 prices.
Figure 1. European Commission's holistic approach to sustainability and the SDGs


Figure 2. European Commission's approach to implementing the SDGs

In November 2021, the Pact of Amsterdam was reconfirmed with the Ljubljana Agreement, also adopted by the EU ministers responsible for Urban Matters, aiming to provide concrete steps to renew the Urban Agenda with a Multiannual Working Programme.

The Directorate-General for Regional and Urban Policy of the European Commission published a review of the UAEU’s implementation of the New Urban Agenda at the end of 2021 (European Commission, 2021). The document reminds that the UAEU represents the EU’s first of three voluntary commitments to implement the New Urban Agenda (European Commission, 2021, p. 7).

During the High-Level Meeting on the Implementation of the New Urban Agenda in April 2022, the Head of the European Union Delegation, Ambassador Olof Skoog, reported that the European Union and its Member States had completed not only the first commitment taken at the Habitat III Conference developing and implementing the UAEU, but also the other two voluntary commitments on the creation of a global people-based definition of cities and the support to city-to-city cooperation.7 The European Union’s investment in cities over the last seven years (from 2017 to 2022) is calculated at €115 billion (Delegation of the European Union to the United Nations in New York, 2022).

Most initiatives supporting the UAEU have been implemented through the Urban Innovative Actions programme and the European Regional Development Fund (ERDF). This financial instrument supports regional development across the EU. The European Investment Bank also provides funding for urban development projects, including transport, energy, and social infrastructure plans.

7 The three European Union commitments in the Habitat III Conference in 2016 were: 1) fostering multi-level governance and improving the urban dimension of EU policies; 2) promoting the use of the Degree of Urbanization as a new global method for aggregating subnational urban data; and, 3) extending the International Urban and Regional Cooperation Programme (UIRC) to work on sustainable solutions to common urban challenges, for the green and digital transitions and for recovery.
Within the framework of the same High-Level meeting, the European Union and its Member States pledged three new commitments to scale up its engagement in, and support to integrated sustainable urban development in EU partner countries, including access to finance; to support 100 European cities to act as hubs for experimentation and innovation for green, digital and inclusive transformations; and, to introduce the New European Bauhaus aiming at designing sustainable spaces for all and improving citizens’ lives through an innovative and human-centred approach (European Commission, 2022).

The EU also has several other initiatives related to sustainable urban development and the localisation of global agendas. For example, the Covenant of Mayors for Climate and Energy is a voluntary commitment by local authorities to reduce greenhouse gas emissions and increase the use of renewable energy.

Experts are calling on the European Union to continue playing a “leadership role in implementing the goals internally and internationally in the run-up to the SDG Summit in September 2023 and beyond. Coordinated efforts to effectively implement EU recovery plans and the ambitious policy and financial instruments adopted in 2020 and 2021, including the Recovery and Resilience Facility, can provide strong support for the UN Decade of Action for the SDGs” (Lafortune, et al., 2021, p. V).

**Implementing and Localising the SDGs in Spain**

As a member of the European Union, Spain fully supported adopting the 2030 Agenda for Sustainable Development, the Paris Agreement, and the New Urban Agenda. Since 2015 and 2016, the Spanish Government and the Spanish subnational and local governments have demonstrated a multilevel and multi-stakeholder commitment to implementing the global sustainability agendas.

In June 2018, the Council of Ministers approved the Action Plan for the Implementation of the 2030 Agenda to cover a transition period and immediately promoted new policies and measures while finalising a long-term sustainable development strategy for Spain.

The approval of the 2030 Sustainable Development Strategy in June 2021 is “the maximum expression of Spain’s political and social commitment to defining its contribution to sustainable development as a country” (Ministerio de Derechos Sociales y Agenda 2030, 2021, p. 22), developed in collaboration with regional administrations, local authorities, civil society, the private sector, academia and the citizenry.

The Spanish government’s local and territorial approach to implementing the 2030 Agenda and achieving the SDGs has been a critical priority. The first Spain Voluntary National Review dedicated a specific chapter to localising the SDGs in Spain. The report highlights the role of the Spanish Federation of Municipalities and Provinces (FEMP), which had already established the localisation of the 2030 Agenda as a priority line of action. Several of Spain’s Autonomous Communities and municipal and provincial authorities were showcased for their policies, strategies, and plans to implement the SDGs.

To ensure coordination among fifteen ministries in the design, drafting, and implementation of plans and strategies for Spain’s compliance with the 2030 Agenda, a Government Delegate Commission was established. A Sectoral Conference for the 2030 Agenda was also created as a cooperative body between the General State Administration and other levels of administration, including local governments, through the Spanish Federation of Municipalities and Provinces (FEMP). A third entity, the Sustainable Development Council, gathers representatives of academia, the private sector, trade unions, ecological, social, and human rights organisations, and international cooperation.
In the Progress Report 2022 of the 2030 Sustainable Development Strategy, the "territorialisation of the measures for the advancement of the 2030 Agenda" requires a "prominent place for local entities in the planning and implementation of the SDGs in Spain" (Ministry for Social Rights and the 2030 Agenda, 2022, p. 28).

To support the efforts of Spanish local governments, the FEMP created the SDGs Agenda 2030 Commission, composed of 25 local elected officials, to work on the localisation of the SDGs. FEMP also published guidelines for SDGs localisation (Federación Española de Municipios y Provincias, 2020) and created a network of local entities for the 2030 Agenda (Red de Entidades Locales para la Agenda 2030), which currently includes more than 530 associated local entities representing well over 29 million inhabitants.

With the impact of the Covid-19 pandemic, the alignment of plans and strategies has become even more relevant. Spain prepared a Recovery, Transformation and Resilience Plan, expanding on "the UN 2030 Agenda and the Sustainable Development Goals" and emphasising "employment and quality education, the transformation of production and consumption models, the fight against climate change in the light of the ecological transition and decarbonisation, the digital revolution and innovation, as well as health and social well-being, to achieve inclusive, fair and sustainable growth in the long term" (Government of Spain, 2020, p. 26).

Regarding implementation, Spain is ranked sixteenth on the 2022 SDG Index, scoring 79.9 (Sachs, Lafortune, Kroll, Fuller, & Woelm, 2022, p. 14), while Finland leads the Index with a score of 86.5. Spain is also among the fifteen countries in the world with high SDG commitment in policy efforts (Sachs, Lafortune, Kroll, Fuller, & Woelm, 2022, p. 48). This fact is especially relevant when analysing which countries have aligned their national Covid-19 recovery plans with the SDGs.

In November 2020, the Spanish Network for Sustainable Development (Red Española para el Desarrollo Sostenible - REDS), the Spanish branch of SDSN, conducted a study on the progress of the SDGs implementation in 100 Spanish cities. The study showed a positive trend, with 82 per cent of the SDGs in the transition towards sustainability in the analysed cities already reaching halfway (REDS - Red Española para el Desarrollo Sostenible, 2020, p. 4).

Spain is also a leading country in implementing the New Urban Agenda, with over 120 cities and towns implementing Local Action Plans within the framework of the Spanish Urban Agenda, which was approved in 2019. The Plan of Action of the 2030 Agenda of the Government of Spain recognised the New Urban Agenda as one of its most relevant policy drivers in accelerating the achievement of the SDGs in 2018.

The Spanish Urban Agenda is a voluntary and flexible strategic framework and a working method aimed at all actors whose public or private activities impact the sustainable urban development of towns and cities. Additionally, several regional territories of Spain, such as Andalucía, Basque Country, Catalonia, and Extremadura, have also prepared their urban agendas.

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9 [https://redagenda2030.es/](https://redagenda2030.es/)
11 More information at [https://www.aue.gob.es/](https://www.aue.gob.es/)
Figure 4. Governments’ commitments and efforts for the SDGs Score (pilot version) versus SDG Index Score


Figure 5. Spain Overall SDGs Performance

CHAPTER 2
Localising the Sustainable Development Goals and the New Urban Agenda in Madrid
Madrid, a City Committed to the Global Agendas

Since the adoption of the global agendas towards a sustainable future in 2015 and 2016, the Madrid City Council has been working to ensure that its city development strategy is fully aligned with the 2030 framework and its long-term vision, as well as coherent with the European and the Spanish plans and initiatives.

Madrid is a role model for all agendas’ integrated and territorial approach. The alignment of political decisions, legal frameworks, policies, practices, public budgets, and recovery funds, and the engagement of different levels of government and stakeholders in the SDGs localisation process, makes Madrid a leader.

As early as May 2016, the Madrid City Council established a multi-stakeholder platform, the Madrid Solidaria Forum, to facilitate an open dialogue and the participation of all social actors in the city’s policies, including the localisation process of the SDGs in Madrid. In mid-2018, a first draft of the 2030 Agenda localisation strategy was prepared, and a consultative period was opened among the members of the Madrid Solidaria Forum.

After the local elections in May 2019, the new government arrived and prioritised the city’s commitment to the 2030 Agenda. On 25 September 2019, the Plenary of the Madrid City Council unanimously agreed to “prepare and approve, by the Governing Board, an updated strategy for the localisation, implementation and monitoring of the Sustainable Development Goals of the 2030 Agenda in the municipality of Madrid, considering the previous draft strategy and other relevant documents already developed” (Madrid City Council, 2019, p. 21).

The Plenary also adopted two other proposals were adopted. The first was to establish mechanisms to consider the contributions of different political parties and other city agents and actors, such as those represented in the Madrid Solidaria Forum. The second proposal was to develop the necessary actions for disseminating and communicating the content and scope of the 2030 Agenda among the citizens of Madrid.

The Covid-19 pandemic outbreak at the beginning of 2020 immersed all cities and countries in a public health emergency. While the bulk of the city’s human and economic resources were put to the service of keeping the well-being of the citizens, several working groups composed of representatives from all the political parties in the municipality of Madrid began to prepare for the post-pandemic recovery scenario. In July 2020, the Acuerdos de la Villa, a document with 352 measures to reactivate the city after the Covid-19 pandemic, was unanimously approved, considering targets and goals aligned with the 2030 Agenda (Madrid City Council, 2020).

The Government Operational Programme for 2019-2023 (GOP) for Madrid was approved by its Governing Board on 25 March 2021, with the Acuerdos de la Villa (Villa Agreements) and the 2030 Agenda as the critical implementation frameworks. The GOP aims to transform the city into “the best city to live and work” through five strategic axes and 28 strategic goals. These objectives are implemented through 140 projects and 1,786 actions organised in 15 transversal plans, all fully aligned with the 2030 Agenda and the achievement of the SDGs.
An Ambitious Localisation Strategy for Achieving the SDGs

In line with the Plenary’s mandate, the Delegate Area for Internationalization and Cooperation, within the Deputy Mayor’s Office Government Area, initiated the process of developing an updated strategy for localising the SDGs in coordination with other areas and departments within the municipality, as well as with contributions of the political parties with municipal representation.

In March 2021, the City of Madrid approved its Localization Strategy for the Sustainable Development Goals of the 2030 Agenda in the City of Madrid. The Strategy defines six leveraging policies structured into 24 lines of action and 104 local targets to be monitored with a system of 160 indicators, enabling the compliance assessment with the goals over the years (Madrid City Council, 2021, p. 9).

Apart from defining its goals and lines of action, the Madrid Localisation Strategy establishes specific local targets12 for the city and a monitoring system based on the annual reports.

The most relevant local targets of the Localisation Strategy include reducing the number of people at risk of poverty or social exclusion by half or the proportion of people living in energy poverty by 2030 (SDG1); improving the coverage of public education for children aged 0-3 years (SDG4)

12 See https://internacional.madrid.es/FWProjects/inter/contenidos/Agenda2030/FICHAS_INDICADORES_ESTRATEGIA_ODS.pdf

Figure 6. Alignment of Madrid’s planning and strategies with the global, European and Spanish agendas

ALIGNMENT ON PLANNING AND STRATEGIES

2030 AGENDA

1. European Union 2030 Agenda (efforts starting from 2017 and reaffirmed in 2021 to accelerate implementation after the COVID-19 crisis.


3. Localization Strategy for the Sustainable Development Goals of the 2030 Agenda in the City of Madrid

NEW URBAN AGENDA


5. Spanish Urban Agenda.


PARIS CLIMATE AGREEMENT

7. European Green Deal.


Note. Own elaboration.
years (SDG4); increasing the proportion of women elected to the office of councillor and leadership positions (SDG5); ensuring 100 per cent of the public bus fleet is “green” or “clean” (SDG7); reducing the structural unemployment rate to 5 per cent and the youth unemployment rate to 15 per cent (SDG8), or reducing greenhouse gas emissions by 65 per cent (SDG13).

From the perspective of the Madrid City Council, the localisation process of the 2030 Agenda and the SDGs “should foster multilevel institutional coherence, and promote multi-stakeholder and interdisciplinary public-private collaboration for effective implementation with a bottom-up approach” and “provide solutions, innovation, technologies and financial resources for the achievement of the SDGs in the territory” (Madrid City Council, 2021, p. 7).

### Figure 7. Summary of the alignment of Madrid Operational Programme 2019-2023 and the Madrid Localisation Strategy

<table>
<thead>
<tr>
<th>STRATEGIC AXIS</th>
<th>LEVERAGING POLICY</th>
<th>NUMBER OF ACTIONS* GOP 2019-2023</th>
<th>SDG AGENDA 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madrid, transparent and easy</td>
<td>Efficient and transparent institutions</td>
<td>28</td>
<td>8, 12, 16</td>
</tr>
<tr>
<td>Madrid, a sustainable city</td>
<td>Climate neutrality, mobility and air quality</td>
<td>72</td>
<td>7, 11, 13</td>
</tr>
<tr>
<td></td>
<td>Green city, responsible consumption and circular economy</td>
<td>51</td>
<td>2, 6, 11, 12, 15</td>
</tr>
<tr>
<td>Madrid, city of social progress</td>
<td>Social protection and equality</td>
<td>96</td>
<td>1, 2, 4, 5, 10, 11, 17</td>
</tr>
<tr>
<td>Madrid, an open, culture and sporty city</td>
<td>City of enjoy</td>
<td>51</td>
<td>2, 3, 11, 17</td>
</tr>
<tr>
<td>Madrid, city of opportunities</td>
<td>Innovation and inclusive and sustainable economy</td>
<td>20</td>
<td>8, 9</td>
</tr>
</tbody>
</table>

*February 2020, but by March 2021 the GOP had 780 actions aligned with the SDGs out of the 1,786 included.


### The Madrid’s Post-Covid-19 Recovery Plan

In June 2021, a few months after approving the GOP 2019-2023 and the Localisation Strategy for the SDGs, the City Council of Madrid prepared a Recovery, Transformation and Resilience Plan for the City of Madrid. The main objective of the Recovery Plan was to prioritise projects and mobilise funds through the Next Generation EU recovery facility for their implementation, to further “enhance the transformation strategy for the City of Madrid” and to align with “the European and national reference framework that pursues a more sustainable, more digital and more inclusive city for citizens” (Madrid City Council, 2021, p. 3).

The Recovery, Transformation and Resilience Plan is structured into ten lines of action and 105 investments, responding to 26 transformation challenges, divided into the six pillars of the European Union Recovery and Resilience Mechanism and the lever policies of the Recovery, Transformation and Resilience Plan of Spain. The 105 projects align with the 17 SDGs...
The investments that Madrid will undertake with the European funds include actions aimed at reducing greenhouse gas emissions in the mobility sector, promoting sustainability in tourism, boosting commercial activity, promoting electric mobility, introducing new plans for social inclusion, digitalising administrative procedures, revitalising the city’s riverbeds, and enhancing emergency and waste management.

As of January 2023, the Madrid City Council and its municipal companies have submitted 33 applications for the NextGenerationEU funds, mobilising €333 million for 96 accepted projects (Madrid City Council, 2023).

Figure 8. Summary of the pillars of the EU Recovery and Resilience Plan, lines of actions and main projects of the Recovery, Transformation and Resilience Plan for the City of Madrid

<table>
<thead>
<tr>
<th>EU Recovery and Resilience six pillars</th>
<th>Madrid Recovery Lines of Action</th>
<th>Twelve Large-scale projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Ecological Transition</td>
<td>(1) City Renaturation</td>
<td>(1) Madrid Metropolitan Forest</td>
</tr>
<tr>
<td>(2) Digital Transformation</td>
<td>(2) Waste Management and Circular Economy</td>
<td>(2) Circular Madrid</td>
</tr>
<tr>
<td>(3) Smart, Sustainable and Inclusive Growth</td>
<td>(3) Efficient and Renewable Energy</td>
<td>(3) Madrid Rehabilitates Energy</td>
</tr>
<tr>
<td>(4) Social and Territorial Cohesion</td>
<td>(4) Digital, Smart and Transformative Madrid</td>
<td>(4) Renewable and Efficient Madrid</td>
</tr>
<tr>
<td>(5) Health, Economic, Social and Institutional Resilience</td>
<td>(5) Sustainable Mobility and Air Quality</td>
<td>(5) 5G Smart Madrid</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Madrid Recovery Lines of Action</th>
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<tr>
<td>(3) Efficient and Renewable Energy</td>
<td>(3) Madrid Rehabilitates Energy</td>
</tr>
<tr>
<td>(4) Digital, Smart and Transformative Madrid</td>
<td>(4) Renewable and Efficient Madrid</td>
</tr>
<tr>
<td>(5) Sustainable Mobility and Air Quality</td>
<td>(5) 5G Smart Madrid</td>
</tr>
<tr>
<td>(6) Innovative Employment and Entrepreneurship</td>
<td>(6) Clean Public Transport in Madrid</td>
</tr>
<tr>
<td>(7) Social Cohesion and Territorial Balance</td>
<td>(7) Electric Mobility in Madrid</td>
</tr>
<tr>
<td>(8) Urban Regeneration</td>
<td>(8) Madrid Audio-visual and Video Game Industry</td>
</tr>
<tr>
<td>(9) Resilient Municipal Infrastructures and Services</td>
<td>(9) Madrid Fashion Capital</td>
</tr>
<tr>
<td>(10) Resilient and Empowered Children, Adolescents and Youth</td>
<td>(10) Madrid Social Rental</td>
</tr>
</tbody>
</table>

Note. Own elaboration.

Prioritising the New Urban Agenda and the Global Climate Action

The localisation of the SDGs in Madrid has been particularly relevant in two dimensions: territorial and climate action.

In June 2021, a pre-assessment of the state of the Urban Agenda in Madrid began, culminating in a diagnosis that identified existing plans and strategies to comply with the New Urban Agenda, the Urban Agenda of the European Union and the Spanish Urban Agenda, and the city SDGs localisation and recovery strategies. The diagnosis identified key challenges such as improving territorial planning instruments, incorporating a metropolitan vision into strategic planning, including a balanced and integrated territorial development and a polycentric approach, as well as promoting social cohesion and habitability through green and blue infrastructures, environmental quality plans regenerating degraded areas (Madrid City Council, 2021, p. 47).
Nearly a year later, in September 2022, the Governing Board approved the Local Action Plan for the Urban Agenda of the city of Madrid as a guiding document for implementing the Urban Agenda in Madrid’s concrete reality (Madrid City Council, 2022). The Action Plan is based on the ten thematic areas of the Spanish Urban Agenda. The ten thematic areas are land, landscape and biodiversity; city model; climate change; sustainable management of resources and circular economy; mobility and transportation; social cohesion and equality of opportunities; urban economy; housing; digital age; and governance. It defines 37 lines of action to be deployed by 107 initiatives and 15 transversal projects, along with their respective strategic objectives and implementation actions. The Plan also proposes a list of indicators and a monitoring mechanism.

In terms of climate action, Madrid published the Environmental Sustainability Strategy Madrid 360 in September 2019 to “transform Madrid into a more environmentally sustainable city” with a global (360 degrees) and long-term vision” (Madrid City Council, 2019).

The Madrid 360 strategy is “a comprehensive plan based on three main pillars: urban environment, sustainable mobility, and open administration (...) the platform acknowledged strategic alignment with eight SDGs, and it planned to monitor progress and implementation via a diverse set of metrics and indicators” (Ciambra, 2022, p. 6).

In 2021, as part of the broader Madrid 360 and aligned with the Paris Agreement and the European Green Deal, the Madrid City Council published Madrid’s Roadmap to Climate Neutrality by 2050, with the primary objective of reducing emissions in the city by 65 per cent by 2030 and achieving climate neutrality by 2050. The Roadmap was officially presented at the C40 European Mayoral Convention in March 2021, and it “identifies and develops those actions especially relevant to Madrid 360 in terms of reducing greenhouse gas emissions to stop, revert and mitigate the effects of climate change” (Madrid City Council, 2021, p. 3).

Although the Roadmap was initially published without explicitly referencing the 2030 Agenda and the SDGs, an updated April 2022 version includes the strategic

**Figure 9. Madrid’s commitment to the global sustainable development agenda**

<table>
<thead>
<tr>
<th>PLANNING</th>
<th>IMPLEMENTING</th>
<th>MONITORING</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCALIZATION STRATEGIES</td>
<td>FINANCIAL INVESTMENT</td>
<td>MEASURING IMPACT</td>
</tr>
<tr>
<td>Aligning city planning and development to the 2030 Agenda and the New Urban Agenda.</td>
<td>Public budget alignment and mobilization of public-private resources to support sustainable development.</td>
<td>Evidence-based and applying global urban frameworks.</td>
</tr>
</tbody>
</table>

Note. Own elaboration.
and instrumental role of the proposed decarbonisation actions in the city’s SDGs achievements and the linkage to the Madrid SDGs localisation strategy.

As concluded by Ciambra (2022), the long-term planning for the sustainable transformation of Madrid and its alignment with national, European, and global agendas is an interesting example of policy integration and development. Ciambra attempts to locate the main strategies and plans published by the Madrid City Council according to each document’s proximity to local, European or global agendas. Their reliance on planning versus monitoring is reflected in Figure 10.

Figure 10. The pattern of Madrid’s sustainability-oriented key policy actions and platforms

CHAPTER 3
Voluntary Local Reviews: More than Just a Monitoring Tool
“The VLRs are more than a monitoring tool, they are also seen as instruments of political relevance, with the potential to stimulate civic mobilisation and participatory planning, while also fostering partnerships and investment towards the achievement of the global goals.” (UCLG and UN-Habitat, 2022, p.2)

The urgency of the issues addressed by the global development agendas has required Member States and stakeholders to swiftly implement them in a multilevel and integrated approach while also placing importance on timely follow-ups and progress reviews.

The 2030 Agenda established a monitoring and review process that requires national governments to report annually on progress towards the Sustainable Development Goals (SDGs) through Voluntary National Reviews (VNRs) at the High-Level Political Forum (HLPF) on sustainable development. Additionally, the 2030 Agenda committed to engaging “in conducting regular and inclusive reviews of progress at the subnational, national, regional and global levels” and encouraged “Member States to conduct regular and inclusive reviews of progress at the national and sub-national levels”.

While the 2030 Agenda did not explicitly guide SDGs localisation monitoring, local and regional government associations and networks advocated for it. As early as 2016, the Valencian Community and North Rhine-Westphalia presented documents regarded as the earliest local reviews (UN-Habitat and UCLG, 2021, p. 11). In 2018, New York City presented the first Voluntary Local Review on the implementation of the SDGs during the High-Level Political Forum (NYC Mayor’s Office for International Affairs, 2018), along with the Japanese municipalities of Kitakyushu, Shimokawa, and Toyama. In 2019, Helsinki became Europe’s first city to report on SDGs progress (City of Helsinki, 2019).

In September 2019, New York City launched the Voluntary Local Review Declaration during the United Nations General Assembly to mobilise local and regional governments worldwide to commit to reporting their local progress toward the SDGs (NYC Mayor’s Office for International Affairs, 2019). UN-Habitat endorsed the Declaration, and UCLG supported the creation of a VLR Community of Practices. Since then, over 330 local and regional governments have joined the movement.

In the 2021 High-Level Political Forum Declaration, Member States noted that “voluntary local reviews [are] a useful tool to show progress and foster exchange in local implementation of the 2030 Agenda and the Sustainable Development Goals” (United Nations, 2021, paragraph 38). One year later, in July 2022, the HLPF Ministerial Declaration welcomed “voluntary subnational and local reviews as an essential tool to show progress and foster exchange on local implementation of the 2030 Agenda and the Sustainable Development Goals” (United Nations, 2022, paragraph 27).

As of 2022, 188 countries have submitted their Voluntary National Reviews to the HLPF at least once, with one more committed to submitting it for the first time in 2023, bringing the total number of VNRs to 189. At the local level, around 150 Voluntary Local Reviews, representing 350 million people, have been conducted (UCLG, 2022).

Spain and Germany have significantly risen to a prominent role in the VLRs reporting landscape. According to the data collected by JRC and updated in April 2022, “the country with the most LRGs to have officially published a VLR is Spain” (Siragusa, Stamos, Bertozzi, & Proietti, 2022, p. 24). “Cities in both countries have formed large VLR clusters and account for about 16 per cent of all VLRs published to date” (UN-Habitat and UCLG, 2021, p. 28).

13 Paragraphs 77 and 79 of the 2030 Agenda. In paragraph 89, there is a call on major groups and other stakeholders, among them local authorities, to report on their contribution to implementing the Agenda.
The VLRs movement is growing as local governments consider them an integrated tool for a coherent, multilevel long-term process towards sustainable development. It offers a unique opportunity to identify place-based priorities (especially within the framework of the implementation of the New Urban Agenda); to align investments and resources across national, regional, and local levels of government; and to engage and cooperate with the private sector, civil society, and other actors.

The importance of Voluntary Local Reviews (VLRs) extends beyond their role in promoting the localisation of the SDGs and progress towards their achievement. They are also valuable as a means for building and strengthening partnerships and monitoring progress through a coherent and evidence-based framework. Although VLRs “were considered reporting tools in their first years of publication”, they have since evolved into a process: “over time, local and regional governments (LRGs) started to consider VLRs more as a process (...) from considering the VLR as an output and evolving to a process that is expected to produce outcomes” (Siragusa, Stamos, Bertozzi, & Proietti, 2022, p. 5).

As the number of VLRs has increased, national governments “have started to see in local reviews a natural ally for their own implementation, monitoring and reporting efforts – including policy alignment with the SDGs as well as their Voluntary National Reviews (VNRs)” (UN-Habitat and UCLG, 2021, p. 7). This process has led to a greater appreciation of the benefits of VLRs as a mechanism for promoting sustainable development at all levels of government, from local to national and global.

Figure 11. Madrid SDGs monitoring efforts

LOCAL SDGs MONITORING EFFORTS

Global movement

The review of SDGs implementation at the local level through the elaboration of Voluntary Local Reviews by cities and regions is growing exponentially.

Accelerators of sustainability

The localization of SDGs and its track and report are powerful accelerators for the achievement of sustainable development through long-term strategies.

Complement to the VNRs

The Voluntary Local Reviews complement and contribute to Voluntary National Reviews (VNRs), ensuring a more detailed assessment of progress towards the achievement of the 2030 Agenda.

Multilevel

Cities are collaborating with diverse international, national and local stakeholders on the reporting of the SDGs, as well as increasing awareness on citizens.

Note. Own elaboration.
A Common Monitoring Framework

“The Global Urban Monitoring Framework harmonises existing urban indexes and tools, and offers a universal framework that will be used to measure the urban SDGs and the NUA.” (UN-Habitat, 2021, p. 4)

The Voluntary Local Reviews, as accelerators for SDGs implementation, have gained support from various institutions to ensure a coherent approach to monitoring SDGs at the local level. In recent years, there has been a significant increase in the number of guidelines, research, working groups, and all types of public-private initiatives to accelerate the implementation of the SDGs.

UCLG and UN-Habitat collaborated to publish the VLR Series to “provide guidance, definitions and technical support to any local and regional government aiming to engage in the VLR process” (UCLG and UN-Habitat, 2020, Foreword). Currently, the VLR Series consists of two volumes: “A Comparative Analysis of Existing VLRs”, published in 2020, and “Towards a New Generation of VLRs: Exploring the local-national link”, published in 2021.

To support VLRs’ efforts, other organisations have also released their own sets of guidelines, such as the “Global Guiding Elements for Voluntary Local Reviews (VLRs) of SDG implementation” by UNDESA; the “Asia-Pacific Regional Guidelines on Voluntary Local Reviews” by ESCAP; the “Guidelines for the Development of Voluntary Local Reviews in the ECE Region” by UNECE; and the “Africa Voluntary Local Review Guidelines” by UNECA, UN-Habitat, and UCLG.

The Joint Research Centre (JRC) of the European Commission has led an effort to measure the SDGs at the local level, providing tools and reinforcing the monitoring frameworks. The second phase of the URBAN2030 project (URBAN2030-II) aims to foster the achievement of SDGs in European cities and regions. It focuses on providing methodological support and inspiration for the design and implementation of SDG Voluntary Local Reviews.

In 2020, the JRC published the first edition of the European Handbook for SDG Voluntary Reviews, providing critical examples of official and experimental indicators useful to set up an effective SDG local monitoring system targeted explicitly for European cities (Siragusa, Vizcaíno, Proietti, & Lavalle, 2020). The second edition of the Handbook was recently launched in June 2022, building on the first edition and including an updated analysis of the VLRs published globally and in Europe, their evolution over time and space in terms of use, main characteristics, and building blocks (Siragusa, Stamos, Bertozzi, & Proietti, 2022).

UN-Habitat and other partners initiated a collaborative reflection process on indicators and data to enhance the links between national and local monitoring protocols to share data globally by developing the VLRs.

In March 2022, the United Nations Statistical Commission endorsed the Global Urban Monitoring Framework (GUMF) as part of the Harmonized Global United Nations System-Wide Strategy for monitoring the SDGs, the New Urban Agenda, and other regional, national, and subnational urban programs. The GUMF harmonises existing urban indices and tools and provides a universal framework for tracking the performance of the urban SDGs and the New Urban Agenda. Its primary objectives are to be an efficient, effective, and harmonised monitoring tool that does not impose an undue burden on cities and to make data comparable. It aims to ensure thematic integration and linkages between the various dimensions of development and data disaggregation.

As highlighted by UN-Habitat, the GUMF is particularly relevant for developing countries where “whole groups of people and places are not being counted, and important aspects of people’s lives and city conditions are not properly measured.”
The main principles of the Framework are to draw on existing data sources where possible; to be people and city-centric; to be able to respond to current and future shocks; to adopt elements that make it usable and valuable, and to be internally consistent. It must also be relevant to the functions and responsibilities of city governments.

The GUMF also provides a coherent approach to defining a city, using the Degree of Urbanization as the recommended method for international comparisons (United Nations Statistical Commission, 2020). This approach is based on the EU-OECD work on the degree of urbanisation definition and the functional urban area (Dijkstra, Poelman, & Veneri, 2019). The European Commission led the development of a global people-based definition of cities and settlements, one of the EU commitments for implementing the New Urban Agenda in the Habitat III Conference in Quito, Ecuador, in 2016.

The Degree of Urbanisation categorises the entire territory of a country into cities, towns and semi-dense areas, and rural areas, with two extensions. The first extension identifies cities, towns, suburban or peri-urban areas, villages, dispersed rural areas, and mostly uninhabited areas. In contrast, the second extension adds a commuting zone around each city to create a functional urban area or metropolitan area. These functional urban areas consist of a densely inhabited city and a less densely populated commuting zone whose labour market is highly integrated with the city (Eurostat, 2018).

The United Nations system encourages the new generation of VLRs to use the Global Urban Monitoring Framework (GUMF) and reflect on “issues such as possible differences between the municipal administrative boundaries and the functional urban area, cross-boundary environmental impacts, decentralisation/devolution, or challenges related to data availability or coordination stemming from this” (UNDESA, 2020).

![Figure 12. Urban Monitoring Framework Structure](image-url)

The Relevance of Madrid in the VLR Movement

As highlighted in the previous chapters, the global momentum for the localisation process of SDGs and the VLR movement has been growing exponentially since 2015, with Madrid playing an active role in advancing this agenda.

First, the city has led joint efforts to enhance the role of cities as implementers and accelerators of sustainable development, especially in the post-Covid-19 recovery framework. The Mayor of Madrid has been a signatory to all the Urban 20 Communiqués since 2018\(^{14}\), including the last two that urged the empowerment of cities to ensure a green and just recovery (U20 Rome)\(^{15}\) and foster sustainable economic and social recovery for all (U20 Jakarta)\(^{16}\).

Secondly, Madrid supported the development of policy-science interfaces and global evidence-based standard monitoring frameworks to improve public policies. The City Council of Madrid has invested technical and financial resources towards developing the Global Urban Monitoring Framework (GUMF). Approved in March 2022 by the United Nations Statistical Commission as the standard for measuring the impact of the SDGs and the New Urban Agenda implementation, the GUMF harmonises existing urban indices and tools and provides a universal framework for tracking the performance of the urban SDGs and the New Urban Agenda. It aims to ensure thematic integration and linkages between the various dimensions of development, as well as disaggregation of data and inclusion of traditionally excluded groups. It promotes work at different scales and functional urban areas.

The initial steps of the Global Urban Monitoring Framework were taken in Madrid in July 2020, when the City Council of Madrid and UN-Habitat convened an Expert Group Meeting (EGM) to work towards a more effective urban monitoring mechanism and to create a task team to draft it. Madrid’s commitment to this initiative has continued. It is now the first European capital to prepare its VLR using the Global Urban Monitoring Framework methodology as a reference (UN-Habitat, 2020).

Third, Madrid has played a key role in strengthening the capacities of cities to prepare their VLRs as tools to support lo-

The publication of this first Madrid Voluntary Local Review and the innovation introduced in its methodology and monitoring approaches are additional milestones in the city’s international leadership in sustainable development.

Figure 14. Madrid’s pioneering work in monitoring SDGs localisation impact

PIONEERING WORK IN MONITORING IMPACT

URBAN MONITORING FRAMEWORK (UMF)

Madrid has supported the development of a monitoring system that allows the monitoring of the cities’ progress towards the SDGs and the New Urban Agenda globally. The Madrid Voluntary Local Review 2022 is one of the first city efforts to apply the UMF.

URBAN FUNCTIONAL AREA DEFINITION

Madrid has supported the efforts of the European Union, in partnership with the OECD and the World Bank, to develop a harmonised definition of cities. The Madrid Voluntary Local Review 2022 is using the Urban Functional Area definition to better understand Madrid’s influence and urban processes.

MEASURING IMPACT OF TWO FLAGSHIP INITIATIVES

The Madrid Voluntary Local Review 2022 is including in its monitoring processes two flagship initiatives in process of development fully aligned with the SDGs:
- Decarbonisation strategy (Madrid 360)
- Madrid Nuevo Norte, an urban regeneration project in the north of the city

Note. Own elaboration.
CHAPTER 4
The Madrid Voluntary Local Review 2023
Madrid, the capital of Spain, is not only the country’s arts and financial centre but also the second-most populated city in the European Union, with 3.3 million inhabitants and more than 6 million in the metropolitan area. The city boasts an enviable geographic location and is home to people from over 180 nationalities, making it a cosmopolitan city. Representing 12 per cent of Spain’s GDP, the Madrid urban agglomeration is the second-largest GDP in the European Union.

Historically, Madrid has been recognised as a city connecting three continents - Europe, Africa, and the Americas. It is home to embassies and international organisations, major companies, and financial institutions, hosting, for example, the Union of Ibero-American Capitals, the C40 regional office for Europe, and the office of the Inter-American Development Bank in Europe.

Madrid is a core member of several networks of cities at national, European, and global levels, such as UCLG, Eurocities, and Metropolis. These networks aim to enhance city diplomacy in multilateral spaces and accelerate the implementation of sustainability at the local level. The city has had a long-term collaboration with the United Nations system, increased within the framework of the 2030 Agenda and the New Urban Agenda, and the alignment of the city policies for the implementation of SDGs both in Madrid and through its international action and cooperation policy.

Madrid is also an open, inclusive city with an excellent transport network and unique infrastructure facilitating first-class connectivity. The city boasts a wide range of educational centres and universities and acts as an influential cultural centre with museums of international reference, placed among the most visited museums in the world, such as the Prado Museum, the Museo Nacional Centro de Arte Reina Sofia, the Thyssen-Bornemisza or CaixaForum Madrid. Additionally, in July 2021, the Paseo del Prado and the Retiro Park were included in the UNESCO World Heritage Sites list.

Nearly three years since the beginning of the Covid-19 pandemic, Madrid is recognised as one of the world’s most attractive cities, with some of the brightest prospects based on its recent investments to increase the quality of life of its citizens. It was ranked the most liveable city in the 2021 Global Power City Index (GPCI) published by the Mori Memorial Foundation’s Institute of Urban Strategies. Madrid was selected among the top 10 cities when evaluating their “magnetism”, or their comprehensive power to attract people, capital, and enterprises from around the world.\(^\text{17}\)

According to the latest annual report (2021) of Madrid Economía, the city’s productive structure is dominated by services (88.3 per cent), followed by industry (7.4 per cent) and construction (4.3 per cent). Within services, the most outstanding branches are Information and Communications; Professional, Scientific and Technical activities; Real Estate and Financial Activities. These four groups account for 40 per cent of the total added value generated by Madrid’s economy (Madrid City Council, 2021, p. 14). Tourist activity is especially important for the city of Madrid, as it occupies a large part of its population.

Purpose and Structure of the VLR

The Madrid City Council presents its first Voluntary Local Review to the United Nations to provide an update on the progress towards achieving the SDGs. This submission is a renewed commitment to advancing the SDGs at both local and global levels through multilevel and multi-stakeholder approaches.

The main objective of the review is to assess Madrid’s progress towards achieving the goals outlined in the 2030 Agenda for

\(^{17}\) The GPCI evaluates the 48 major cities across the world on the basis of 70 indicators in six functions: Economy, Research and Development, Cultural Interaction, Liveability, Environment, and Accessibility.
Sustainable Development. The VLR seeks to describe the city’s localisation process, enhance the monitoring and evaluation of the SDGs accomplished thus far, and serve as the primary communication tool for the city and its stakeholders regarding the local implementation of the 2030 Agenda and the SDGs.

The VLR aims to be a comprehensive, transparent, and realistic document based on evidence that encourages concrete action and collaboration towards SDGs implementation. The review has a dual focus: firstly, it emphasises the accomplishment of the SDGs at the local level by promoting policy coherence, developing municipal-level capacities for evidence-based policy formulation, and increasing participation from various actors in the city. Secondly, it is a tool to highlight the capacity of governments and local actors to contribute to achieving the SDGs at national, regional, and global levels.

The VLR builds upon the strategic objectives and long-term vision of:

a) Increasing the local and citizenship awareness around the 2030 Agenda, the SDGs, the New Urban Agenda, and their localisation, by providing transparent information and data on their impact, thereby supporting more conscious and active citizens.

b) Fostering capacity building and innovation in public and private organisations to promote multi-stakeholder collaboration in achieving the global goals at the territorial level, by replicating or adapting the integrated planning, management, and monitoring framework of the SDGs localisation process.

c) Strengthening the participation and co-creation of SDGs-specific implementation plans by public or private actors, increasing the use and complementarity of technology and data to achieve them.

d) Attracting public and private financial resources for the city’s long-term sustainable development and understanding the impact of blended investments for the SDGs achievement.

The Report’s structure follows the recommended building blocks in the most relevant guides and publications. It includes an opening statement; an introduction to the global, European and Spanish context (Chapter 1); an overview of the process of localisation of the SDGs and the New Urban Agenda in Madrid (Chapter 2); an approach to the VLR movement and relevance (Chapter 3), a summary of the city and its vision, including the main purpose and structure of the VLR (Chapter 4); the methodology applied to measure progress in each of the 17 SDGs (Chapter 5); a detailed chapter with data in each of the SDGs (Chapter 6), and a final chapter with the conclusions and final comments (Chapter 7).

Chapter 6 is the core of the VLR, with an SDG target fact sheet for each goal integrating all the elements and data considered in the analysis. As mentioned in Chapter 3, the data and indicators collected for elaborating this first Madrid Voluntary Local Review are presented using the approach proposed by the Global Urban Monitoring Framework (GUMF), which the United Nations Statistical Commission endorsed in March 2022. A final annex with the indicators’ description for each SDG target and the list of the data sources has been included in the VLR.

An additional pioneering aspect of this VLR’s monitoring process is the inclusion of a zoom-in on two transformative flagship initiatives in the city that highlight the long-term strategy of the SDGs localisation, demonstrating both a territorial and sectoral impact. The first initiative focuses on the territorial approach and how Madrid Nuevo Norte, the largest urban regeneration project in the city, contributes to achieving the SDGs. The second initiative focuses on a transversal policy, Madrid’s roadmap towards carbon neutrality by 2050, and how the different actions included in this roadmap are aligned with the goals.
The Delegate Area for Internationalization and Cooperation of the Madrid City Council led the elaboration of the Voluntary Local Review in collaboration with all the municipal areas. The Review was developed between July 2022 and January 2023, with the latest data update as of 31 January 2023.

Figure 15. Image of the Madrid Nuevo Norte area


Case Studies

The Madrid Voluntary Local Review incorporates two flagship initiatives for the city in its monitoring exercise, fully aligned with the SDGs: Madrid Nuevo Norte and the Madrid Roadmap towards carbon neutrality by 2050.

Madrid Nuevo Norte and its SDGs impact

Madrid Nuevo Norte (MNN) is the major urban regeneration project of the city of Madrid and one of the largest urban regeneration interventions in Europe. Located in the north of the city, with the Chamartín railway station at its heart, it aims to transform a 5.6 km long strip of land and regenerate more than 2.3 million m² of disused land.

The project is committed to a dense, compact, mixed-use city model oriented towards public transport, public space, sustainable mobility, providing new connections, jobs, and sustainable growth. It will comprise around 10,500 housing units, of which 20 per cent (2,100) will be affordable housing.

Three quarters of the project area will be dedicated to public use, with more than 400,000 m² of green areas and educational, sporting, cultural and health facilities. The expected economic impact, calculated by the Lawrence R. Klein University Institute for Economic Forecasting attached to the Universidad Autónoma de Madrid, is €15.2 billion in the national GDP, with nearly 350,000 jobs linked to the project (Madrid Nuevo Norte).

Its scale and transformative approach make it a fundamental part of the long-term strategy of the city of Madrid and even more relevant to the Madrid functional urban area. Madrid Nuevo Norte will connect neighbourhoods that have been physically disconnected from the urban grid and increase the accessibility and connectivity of Madrid as a whole.
The project will transform a run-down industrial district, home to abandoned railway yards, empty buildings, and underused public spaces, into a modern, sustainable, and integrated urban area.

The success of an urban regeneration process such as the Madrid Nuevo Norte project requires a comprehensive vision of sustainability.

From the beginning of the project’s conceptualisation, Madrid Nuevo Norte took the 2030 Agenda as a guide to carry out all its actions. It has placed special emphasis on specific SDGs, considered critical because of the more significant contribution of the project spaces for the use of all citizens.

Madrid Nuevo Norte has included gender equality (SDG5) in its design and implementation, increasing awareness of the gender dimensions in urban planning globally. This work has been carried out with the support of the UNESCO Chair on Gender of the Polytechnic University of Madrid.

The UNESCO Chair and Madrid Nuevo Norte published the Toolkit: Gender in large-scale urban initiatives in 2021 (Sánchez de Madariaga & Novella Abril, 2021). This publication is a practical manual to address gender dimensions in large-scale urban developments based on the experience of the work carried out during the planning phase of the project (Madrid Nuevo Norte, 2021).

The Madrid Nuevo Norte sustainability comprehensive strategy, presented in June 2021, identified eight transversal priorities for implementing the project: green infrastructure, carbon-neutral, minimising the water and materials footprint, urban planning for everyone, digitalisation, last-mile logistics and urban design centred around public transport.

In parallel to the elaboration of the first Madrid VLR and in collaboration with the Madrid City Council and UN-Habitat, Crea Madrid Nuevo Norte, the private company managing and promoting the project, prepared a specific report to identify, determine, and measure the impact that the urban regeneration project will have on the city’s achievement of the SDGs. The analysis, launched in November 2022, acts as a Territorial Zoom to the city’s VLR and applies the GUMF to evaluate its impact (Crea Madrid Nuevo Norte).

The main conclusions are that Madrid Nuevo Norte contributes to the 17 SDGs, impacting on 51 targets directly, including 27 of them with high impact, especially on SDG3, SDG8 and SDG11. Its contribution is also relevant in SDG6, SDG12 and SDG13 (Crea Madrid Nuevo Norte, 2023).

The territorial impact of Madrid Nuevo Norte is analysed at the municipal level, but also at the regional scale. Around 60% of the goals in which the project has an impact are located in its immediate surroundings, improving neighbourhood accessibility, green areas, or educational infrastructure.

The alignment of both processes is a unique initiative and becomes an asset for the capacity of the city of Madrid to monitor public-private efforts to achieve the SDGs.
Figure 18. Madrid Nuevo Norte impact in the SDGs

27 HIGH-IMPACT
SDG TARGETS

Madrid's Roadmap towards Climate Neutrality and the SDGs

Madrid's Roadmap to Climate Neutrality is a comprehensive plan developed by the city government to reduce greenhouse gas emissions by 65 per cent in 2030 (against the baseline data of 1990) and achieve carbon neutrality by 2050. The Roadmap is a response to the global challenge of climate change and the necessity of transitioning to a sustainable, low-carbon economy. It is fully in line with European and national policies.

Experts consider the Roadmap as “a technical tool that responds to a very specific purpose – that of reaching climate neutrality – and complements more all-encompassing frameworks, like Madrid 360 or the city’s Recovery Plan” (Ciambra, 2022, p. 7). The plan targets four main sectors: energy, buildings, mobility, and waste.

In the energy sector, the plan seeks to increase the share of renewable energy sources in the city's energy mix and reduce energy consumption through energy efficiency measures while promoting the use of electric vehicles. The city aims to achieve these goals by expanding the installed capacity of renewable energy sources, promoting energy-efficient buildings and appliances, and installing charging infrastructure for electric vehicles.

The plan prioritises promoting energy efficiency measures and improving building insulation in the building sector. This involves retrofitting existing buildings with energy-efficient technologies and materials, enabling passive design strategies, and implementing building codes and standards that encourage sustainable and energy-efficient buildings.

Figure 19. Madrid Roadmap towards Carbon Neutrality’s drivers and benefits

<table>
<thead>
<tr>
<th>DECARBONISATION DRIVERS</th>
<th>ASSOCIATED BENEFITS IN ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction of transport demand</td>
<td>Health</td>
</tr>
<tr>
<td>Modal shift</td>
<td>Biodiversity</td>
</tr>
<tr>
<td>New transport technologies</td>
<td>Urban nature</td>
</tr>
<tr>
<td>Energy rehabilitation</td>
<td>Air Quality</td>
</tr>
<tr>
<td>Electrification of heating systems</td>
<td>Equality and social inclusion</td>
</tr>
<tr>
<td>Waste volume reduction</td>
<td>Water management</td>
</tr>
<tr>
<td>Improved recycling rates</td>
<td>Energy accessibility</td>
</tr>
<tr>
<td>Emissions offsets</td>
<td>Clean energy</td>
</tr>
<tr>
<td></td>
<td>Acoustics</td>
</tr>
<tr>
<td></td>
<td>Economics growth</td>
</tr>
<tr>
<td></td>
<td>Local economies, new business models</td>
</tr>
<tr>
<td></td>
<td>Promotion of circular economy</td>
</tr>
</tbody>
</table>

In the mobility sector, the plan aims to promote sustainable modes of transportation, such as public transportation, walking, and cycling, while reducing the use of private cars. In the waste sector, the plan focuses on reducing waste generation and increasing the recycling and recovery of resources. This includes implementing waste reduction and separation programs, promoting the circular economy, and developing waste-to-energy facilities that use renewable energy sources.

Madrid’s decarbonisation roadmap towards 2050 outlines a series of specific, measurable, and time-bound targets track progress and changes in the Roadmap, the Madrid City Council produces an annual Greenhouse Gases (GHG) inventory. This inventory provides data on emissions generated directly within the municipality and indirectly from electricity consumption and distribution losses, broken down by activity sector. Furthermore, a report will be carried out every five years from 2020 to evaluate the Roadmap’s evolution, objective fulfilment, and implementation of planned adaptation actions.

Madrid’s decarbonisation roadmap towards 2050 is intricately linked to multiple SDGs, the most apparent connection is with SDG 13 - Climate Action. Moreover, the Roadmap contributes to other SDGs such as SDG7 - Affordable and Clean Energy, SDG11 - Sustainable Cities and Communities, SDG12 - Responsible Consumption and Production, and SDG17 - Partnerships for the Goals.

According to Ciambra (2022, p. 37), the Roadmap could be expanded to other critical drivers of local action to enhance climate neutrality at the municipal level. These drivers include wastewater and water management (SDG6), food security and sustainability of a more localised food value chain (SDG2), the impact of GHG emissions and other pollutants on health (SDG3), and sector-specific emissions and the identification of bottlenecks in the transition towards cleaner and more sustainable growth patterns (SDG9).

The Roadmap has been developed as “a substantial contribution to Madrid’s strategic effort to locate itself in the larger movement of front-running cities taking the initiative against climate change and the challenges that it poses to the urban environment in particular.” (Ciambra, 2022, p. 9)

One of the most specific elements of the process that led to the definition of the Roadmap was the belief that a city-wide initiative for climate neutrality and a de-
carbonised urban model had to be the outcome of multi-stakeholder collaboration and fluid solution-oriented partnerships (Ciambra, 2022, p. 9). The establishment of this collaborative environment preceded the Roadmap and was further consolidated in one of Climate-KIC’s Deep Demonstrations18. Finally, Madrid is part of the EU’s 100 Climate-Neutral and Smart Cities’ Mission, supported by the NetZeroCities platform19.

Madrid’s Roadmap to 2050 offers a valuable case study for tracking progress towards localised decarbonisation goals. The city’s comprehensive baseline assessment, clear and measurable targets, monitoring and reporting framework, and stakeholder engagement and partnership-building efforts all provide valuable lessons for other cities and regions undertaking similar decarbonisation efforts. By drawing on Madrid’s experience, cities and regions can create more effective and sustainable decarbonisation strategies that drive meaningful progress towards a low-carbon future.

18 Climate-KIC is a Europe-wide initiative promoted since 2010 by the European Institute of Innovation and Technology (EIT) — an EU agency active since 2008 and now framed within the Horizon 2020 Programme. Climate-KIC is a public-private initiative that supports research development, as well as awareness-raising and education to promote products, technologies, and urban policies for climate change mitigation and adaptation. It also works as an incubator and accelerator of innovative industry and start-ups. The initiative has also been promoting and supporting Deep Demonstrations, “large-scale projects implemented across different positions in systems of learning”, i.e., live urban- and territory-scale living laboratories serving as “testbed environments to remain below 1.5 degrees” and new technologies, products, and policy options for more sustainable urban contexts. All information on the Climate-KIC initiative is available online: https://www.climate-kic.org/. More details on the Deep Demonstrations programme: https://www.climate-kic.org/programmes/deep-demonstrations/. More information on the EIT: https://eit.europa.eu/

19 All information about the EU Missions available online: https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe_en
CHAPTER 5
Measuring the SDGs
Progress in Madrid
Methodological Framework

As mentioned in previous chapters, the data and indicators collected for elaborating this first Madrid Voluntary Local Review are presented following the approach proposed by the Global Urban Monitoring Framework (GUMF). The implementation of the GUMF has been done in collaboration with UN-Habitat.

The main principles of the GUMF are to draw on existing data sources where possible; to be people- and city-centric; to respond to current and future shocks; to adopt elements that make it usable and valuable; and to be internally consistent. City-centric monitoring can be enabled by selecting indicators that can be measured at the urban scale and, more importantly, can be influenced by relevant city agencies—the bodies responsible for the good governance of and service provision for cities.

Applying the GUMF on the set of indicators: Inputs, Outputs, Outcomes, and Impact

The data and indicators collected for this VLR are presented following the GUMF block model shown in figure 21.

In this model, the “Input” refers to the actions and projects that are taken, and it is associated with effort indicators that measure the resources used to implement these actions. The “Output” is the result derived from applying one or more inputs and is associated with the result or operational indicators that measure the efficiency of the actions taken. The “Outcome” is the expected achievement of the actions taken, and it is associated with result indicators that measure the effectiveness of the actions taken. Finally, the “Impact” is the broader-scale effect of the actions taken and is associated with impact indicators that measure the long-term effects of the actions taken.

Effort indicators (inputs) measure an action implemented at the local level and serve to assess the status of its implementation. Still, by themselves, they do not define the impact (for example: “number of schools built” or “kilometres of bike lanes”). In the case of results or performance indicators (outcomes), they measure the achievement of the objective. They are aimed at evaluating the quality of life of citizens (for example: “unemployment rate” or “crime rate”). They quantify an improvement or deterioration in a goal, but must be related to an effort indicator to assess whether the impact is generated.

Figure 21. GUMF’s block model

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
<th>Outcome</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child healthcare number and distribution</td>
<td>Equitable distribution of child health services</td>
<td>Reduced under-5 mortality rate</td>
<td>Safe, more inclusive, resilient and sustainable city</td>
</tr>
<tr>
<td>Number of tertiary qualified secondary teachers</td>
<td>Improved student/teacher ratio</td>
<td>Higher secondary retention rate</td>
<td></td>
</tr>
<tr>
<td>Kilometers of new rail line</td>
<td>Reduced PM2.5 level</td>
<td>Reduced death due to air pollution</td>
<td></td>
</tr>
</tbody>
</table>

Box 1. Example of the application of the GUMF block model

This is a concrete example of how the GUMF block model is applied to analyse the impact of Madrid’s SDGs localisation efforts on SDG target 11.4.

The analysis starts by identifying the inputs, which are the actions implemented by the City Council of Madrid related to this SDG. An effort indicator is associated with this input to measure the resources used for preserving, protecting, and conserving all cultural and natural heritage: total expenditure per capita on preservation, protection and conservation.

The output indicators are derived from the inputs and associated with result or operational indicators that measure the actions. In this example, the output indicators are the “Cultural Index” and the “protection and management of the historic-artistic heritage per inhabitant”, based on official data from the City Council of Madrid and other additional sources.

The measurement of the Outcome generates a direct impact on the SDG target 11.4.

To establish the effort and result indicators for this first Madrid VLR, several European and Spanish-level reference sources have been consulted, as well as the Localisation Strategy for the Sustainable Development Goals of the 2030 Agenda in the city of Madrid.

After analysing all the sources and collaborating with UN-Habitat, a total of 64 input indicators and 89 output indicators were identified. Among the output indicators, 19 coincide with GUMF indicators, 7 with the Spanish Urban Agenda, 25 are also measured at the Madrid Functional Urban Area, and 30 at the Greater Madrid Area.

## Harmonisation of the Urban Area definition

The GUMF also promotes a harmonised definition for the delineation of areas. According to the GUMF, the area object of the analysis should be the broad Madrid Functional Urban Area to understand Madrid’s influence and urban processes better.

The European Union and the OECD jointly developed a methodology to define functional urban areas consistently across countries (Dijkstra & Poelman, Cities in Europe: the new OECD-EU definition, 2012). It was the first time that a “harmonised” definition of “a city” was proposed to increase the capacity “to compare socio-economic and spatial trends in cities and to design urban development policy” (Dijkstra, Poelman, & Veneri, The EU-OECD Definition of a Functional Urban Area, 2019, p. 4).

The Functional Urban Area (FUA) comprises a city and its commuting zone. The commuting zone generates a daily flow of people into a city and back (home to their dwelling). Functional urban areas, therefore, consist of a densely inhabited city and a less densely populated commuting zone whose labour market is highly integrated with the city (OECD, 2012). Such areas are often referred to as ‘functional’ because they capture the full economic function of a city.

A Functional Urban Area classification benefits policymaking in several domains, including employment, economic development, mobility dynamics and transport. It should be noted that not all the areas within a Functional Urban Area need to be classified as urban areas (in other words, cities plus towns and semi-dense areas) and that, as such, a functional urban area may contain rural areas if these belong to the commuting zone of a city.

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Similarly, it is possible for an urban area to be located outside a functional urban area, but only if it is composed of towns and semi-dense areas and therefore does not have a city. In other words, because cities are systematically included as part of a functional urban area, only towns and semi-dense areas (as well as rural areas) can be located outside an active urban area.

While the Degree of Urbanisation (DEGURBA) classifies the local administrative units as cities, towns and suburbs or rural areas based on a combination of geographical contiguity and population density, the Functional Urban Area methodology classifies only the local units that are either cities or part of their surrounding commuting zones. A Functional Urban Area can contain rural areas if these belong to the commuting zone of a city.

Using the Functional Urban Area allows for a comprehensive analysis, understanding an impact in the municipality of Madrid, in the Greater Madrid Area and the Functional Urban Area (triple analysis).

Other analysis and research should contemplate a more in-depth analysis of aspects such as mobility, employment/unemployment rates, GDP growth and income distribution. For example, when focusing on mobility, Madrid receives the daily impact of workers from other nearby cities not included in the Functional Urban Area. Around 58,000 persons live in Toledo and work in Madrid, while incomings from Guadalajara exceed 40,000 persons. More than 160,000 employed individuals from all over the country work in the capital despite living in other provinces.

**Figure 23. Degree of Urbanization**

<table>
<thead>
<tr>
<th>Preferred term</th>
<th>Synonym</th>
<th>Discontinued terms</th>
<th>Geographic level</th>
</tr>
</thead>
<tbody>
<tr>
<td>City centre</td>
<td>High-density cluster (HDC)</td>
<td>City core</td>
<td>Grid</td>
</tr>
<tr>
<td>City</td>
<td>Densely populated area</td>
<td>Urban core</td>
<td>Local unit</td>
</tr>
<tr>
<td>Commuting zone</td>
<td></td>
<td>Hinterland</td>
<td>Local unit</td>
</tr>
<tr>
<td>Functional urban area (FUA)</td>
<td></td>
<td>Larger urban zone (LUZ)</td>
<td>Local unit</td>
</tr>
<tr>
<td>Metropolitan area</td>
<td>FUA of at least 250,000</td>
<td></td>
<td>Local unit</td>
</tr>
<tr>
<td></td>
<td>inhabitants</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Own elaboration based on From OECD. Cities in the World : A New Perspective on Urbanisation [https://www.oecd-ilibrary.org/sites/05384b8c-en/index.html?itemId=/content/component/05384b8c-en](https://www.oecd-ilibrary.org/sites/05384b8c-en/index.html?itemId=/content/component/05384b8c-en)
Box 2. How to define the Functional Urban Area?

According to the EU-OECD methodology, a functional urban area can be defined in four steps:

1. Identify an urban centre: a set of contiguous, high density (at least 1,500 residents per square kilometre) grid cells with a population of 50,000 in the contiguous cells. This step is identical to the one used in the Degree of Urbanization to define an urban centre. An urban centre relies on a population grid which can identify spatial concentrations of population independently from political or administrative boundaries, using spatial units of the same shape and size. An urban centre or high-density cluster is a new spatial concept based on grid cells of one square kilometre. It is defined in three steps:

   Step 1: All grid cells with a density of more than 1,500 inhabitants per square kilometre of land are selected.
   Step 2: The contiguous high-density cells are then clustered. Only the clusters with at least 50,000 inhabitants are kept. To avoid over-aggregation, cells with only the corners touching are not considered contiguous.
   Step 3: Gaps in each cluster are filled separately and its edges smoothed.

2. Identify a city: one or more local units that have at least 50 per cent of their residents inside an urban centre. A local unit can be either an administrative or statistical. Examples of administrative units include a municipality, a district, a neighbourhood or metropolitan area. Some of these administrative units also play a political role as electoral districts or local government areas. Statistical units can be enumeration areas, census blocks, census tracts, wards, super output areas, named places or small areas. This step is identical to the one used in the Degree of Urbanization to define a city.

3. Identify a commuting zone: a set of contiguous local units that have at least 15 per cent of their employed residents working in the city. Once all cities have been defined, commuting zones can be identified using the following steps:

   - If 15 per cent of employed persons living in one city work in another city, these cities are treated as a single destination.
   - All local units with at least 15 per cent of their employed residents working in a city are identified as part of the commuting zone of that city.
   - Enclaves, i.e. local units entirely surrounded by other local units that belong to a commuting zone or a city are included and exclaves or non-contiguous local units are dropped.

A Functional Urban Area consists of the city and its respective commuting zone. It can happen that, due to a low intensity of commuting flows, there is no commuting zone.

**Madrid Functional Urban Area**

In the case of Spain, as of July 2022, the OECD identifies 81 functional urban areas, with Madrid being the largest in population.

Barcelona, Valencia, Seville and Bilbao are the other functional areas with at least one million inhabitants. Only Madrid and Barcelona are considered large metropolitan areas.

For this Voluntary Local Review, when possible and valuable, data disaggregated by the Madrid municipality, the Greater Madrid Area and the Madrid Functional Urban Area is compared.

In terms of percentages, the Madrid Municipality is 47% of the total Madrid Functional Urban Area. When adding to Madrid the other 14 municipalities considered within the Greater Madrid Area, the population percentage rises to 72%.
Madrid is the capital of Spain and of the Autonomous Community of Madrid. The local administration unit is the Madrid Municipality, divided into 21 districts and 131 neighbourhoods.

Its total population as of 1 January 2022 is 3,280,782 inhabitants: 1,749,568 women (53.3%) and 1,531,214 men (46.7%). In terms of extension, the municipality of Madrid occupies 604.3 km².
### Greater Madrid Area

The Greater Madrid Area proposed in this Report comprises those local administration units not more than 20 kilometres from the centre of Madrid.

As of 1 January 2022, the total population of this area is 5,030,132 inhabitants: 2,649,771 women (52.7%) and 2,380,262 men (47.3%). In terms of extension, the Greater Madrid Area occupies 1,233.12 km², with a density of 4,079.19 inhabitants per km².

![Map of Greater Madrid Area](image)

**Table 1. List of municipalities included in the Greater Madrid Area**

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Population (01.01.2022)</th>
<th>Female population (01.01.2022)</th>
<th>Male population (01.01.2022)</th>
<th>Extension (km²)</th>
<th>Density (inhab./km²)</th>
<th>Distance from Madrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madrid</td>
<td>3,280,782</td>
<td>1,749,568</td>
<td>1,531,214</td>
<td>605.77</td>
<td>5,415.89</td>
<td></td>
</tr>
<tr>
<td>Alcobendas</td>
<td>117,041</td>
<td>61,134</td>
<td>55,907</td>
<td>44.98</td>
<td>2,602.07</td>
<td>14.9</td>
</tr>
<tr>
<td>Alcorcón</td>
<td>170,296</td>
<td>88,623</td>
<td>81,673</td>
<td>33.73</td>
<td>5,048.80</td>
<td>13.9</td>
</tr>
<tr>
<td>Coslada</td>
<td>80,596</td>
<td>41,315</td>
<td>39,281</td>
<td>12.01</td>
<td>6,710.74</td>
<td>10.8</td>
</tr>
<tr>
<td>Fuenlabrada</td>
<td>189,891</td>
<td>96,622</td>
<td>93,170</td>
<td>39.41</td>
<td>4,818.35</td>
<td>17.6</td>
</tr>
<tr>
<td>Getafe</td>
<td>183,219</td>
<td>93,826</td>
<td>89,393</td>
<td>78.38</td>
<td>2,337.57</td>
<td>13.1</td>
</tr>
<tr>
<td>Leganés</td>
<td>186,660</td>
<td>96,622</td>
<td>90,038</td>
<td>43.09</td>
<td>4,331.86</td>
<td>12.2</td>
</tr>
<tr>
<td>Majadahonda</td>
<td>72,179</td>
<td>38,031</td>
<td>34,148</td>
<td>38.47</td>
<td>1,876.24</td>
<td>16.4</td>
</tr>
<tr>
<td>Móstoles</td>
<td>208,761</td>
<td>107,443</td>
<td>101,318</td>
<td>45.36</td>
<td>4,602.31</td>
<td>18.2</td>
</tr>
<tr>
<td>Parla</td>
<td>130,577</td>
<td>65,730</td>
<td>64,847</td>
<td>24.51</td>
<td>5,327.50</td>
<td>21.2</td>
</tr>
<tr>
<td>Pozuelo de Alarcón</td>
<td>87,728</td>
<td>45,739</td>
<td>41,989</td>
<td>43.20</td>
<td>2,030.74</td>
<td>10.5</td>
</tr>
<tr>
<td>Rivas-Vaciamadrí</td>
<td>96,690</td>
<td>48,801</td>
<td>47,889</td>
<td>67.38</td>
<td>1,435.00</td>
<td>14.2</td>
</tr>
<tr>
<td>Las Rozas de Madrid</td>
<td>95,725</td>
<td>49,493</td>
<td>46,232</td>
<td>58.31</td>
<td>1,641.66</td>
<td>17.5</td>
</tr>
<tr>
<td>San Fernando de Henares</td>
<td>38,904</td>
<td>19,944</td>
<td>18,960</td>
<td>39.86</td>
<td>976.02</td>
<td>13.3</td>
</tr>
<tr>
<td>San Sebastián de los Reyes</td>
<td>91,083</td>
<td>46,880</td>
<td>44,203</td>
<td>58.66</td>
<td>1,552.72</td>
<td>15.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,030,132</td>
<td>2,649,771</td>
<td>2,380,262</td>
<td>1,233.12</td>
<td>4,079.19</td>
<td></td>
</tr>
</tbody>
</table>

Madrid Functional Urban Area

According to the OECD and the Spanish National Statistics Institute, the Madrid Functional Urban Area is composed of 166 municipalities: 128 of them in the Autonomous Community of Madrid; other 37 of them in the Autonomous Community of Castilla La Mancha (in the provinces of Guadalajara and Toledo), and one municipality in the Autonomous Community of Castilla y León (in the province of Ávila).

The total population of the Madrid Functional Urban Area is 6,982,656 inhabitants as of 1 January 2022.

When referring to the Madrid Functional Urban Area, this Voluntary Local Review uses the data of these 166 municipalities with a total population of 6,982,656 as of 1 January 2022.

Most of the population (96.23%) of the Madrid Functional Urban Area is in the Autonomous Community of Madrid.

It is important to highlight that the total population of the administrative boundary of the Madrid Autonomous Community is 6,750,336 inhabitants. In comparison, the population of the Madrid Functional Urban Area is 6,982,656 inhabitants.

Table 2. Composition of the Madrid Municipality, Greater Madrid Area and Madrid FUA

<table>
<thead>
<tr>
<th></th>
<th>Number of municipalities</th>
<th>Population 01.01.2022</th>
<th>Female population</th>
<th>Male population</th>
<th>% Total population in Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madrid Municipality</td>
<td>1</td>
<td>3,280,782</td>
<td>1,749,568</td>
<td>1,531,214</td>
<td>6.9%</td>
</tr>
<tr>
<td>Greater Madrid Area</td>
<td>15</td>
<td>5,030,132</td>
<td>2,649,771</td>
<td>2,380,262</td>
<td>10.6%</td>
</tr>
<tr>
<td>Madrid Functional Urban Area</td>
<td>166</td>
<td>6,982,656</td>
<td>3,633,796</td>
<td>3,348,860</td>
<td>14.7%</td>
</tr>
</tbody>
</table>

Note. Own elaboration based in data from the Spanish National Statistics Institute (INE).
**Table 3. Municipalities included in the Madrid Functional Urban Area**

<table>
<thead>
<tr>
<th>Madrid Functional Urban Area</th>
<th>Number of municipalities</th>
<th>Population 01.01.2022</th>
<th>Female population</th>
<th>Male population</th>
<th>% Total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomous Community of Madrid</td>
<td>128</td>
<td>6,719,339</td>
<td>3,505,354</td>
<td>3,213,985</td>
<td>96.23%</td>
</tr>
<tr>
<td>Autonomous Community of Castilla La Mancha (province of Toledo)</td>
<td>30</td>
<td>179,492</td>
<td>87,154</td>
<td>92,338</td>
<td>2.57%</td>
</tr>
<tr>
<td>Autonomous Community of Castilla La Mancha (province of Guadalajara)</td>
<td>7</td>
<td>79,452</td>
<td>39,129</td>
<td>40,323</td>
<td>1.14%</td>
</tr>
<tr>
<td>Autonomous Community of Castilla y León</td>
<td>1</td>
<td>4,373</td>
<td>2,159</td>
<td>2,214</td>
<td>0.06%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>166</strong></td>
<td><strong>6,982,656</strong></td>
<td><strong>3,633,796</strong></td>
<td><strong>3,348,860</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Note. Own elaboration based in data from the Spanish National Statistics Institute (INE).


2. Municipalities of the Autonomous Community of Castilla La Mancha (province of Toledo): Borox, Cabanillas de la Sagra, Camarena, Carranque, Casaruribios del Monte, Cedillo del Condado, Chozas de Canales, Esquivias, Illescas, Lominchar, Méntrida, Numancia de la Sagra, Oingtola, Palomque, Pantoja, Paredes de Escalonado, Quismundo, Recas, Santa Cruz del Retamar, Seseña, La Torre de Esteban Hambrún, Ugena, Valmocado, Las Ventas de Retamosa, Villaluenga de la Sagra, El Viso de San Juan, Yeles, Yepes, Yuncler, and Yuncos.

3. Municipalities of the Autonomous Community of Castilla La Mancha (province of Guadalajara): Alovera, Azuqueca de Henares, El Casar, Galápago, Torrejón del Rey, Uceda and Villanueva de la Torre.


**Table 4. Comparison between the Autonomous Community of Madrid and the Madrid FUA**

<table>
<thead>
<tr>
<th>Autonomous Community of Madrid</th>
<th>Number of municipalities</th>
<th>Population 01.01.2022</th>
<th>Female population</th>
<th>Male population</th>
<th>% Total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part of the Madrid Functional Urban Area</td>
<td>128</td>
<td>6,719,339</td>
<td>3,505,354</td>
<td>3,213,985</td>
<td>99.54%</td>
</tr>
<tr>
<td>Non-part of the Madrid Functional Urban Area</td>
<td>51</td>
<td>30,997</td>
<td>14,828</td>
<td>16,169</td>
<td>0.46%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>179</strong></td>
<td><strong>6,750,336</strong></td>
<td><strong>3,520,182</strong></td>
<td><strong>3,230,154</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Note. Own elaboration based in data from the Spanish National Statistics Institute (INE).
Data Analysis

The innovative approach used in the data analysis of this VLR has three direct implications in the fact sheets for each assessed target shared in Chapter 6:

a) Indicators monitoring the outcomes are encouraged over indicators measuring the inputs so that meaningful transformation is being observed.

b) Where relevant, applying the Degree of Urbanisation when measuring indicators provides a triple territorial analysis. This considers data for the city and its commuting zone, showing data at the municipality level, the Greater Madrid Area, or the Madrid functional urban area.

c) In specific targets, information on how Madrid Nuevo Norte and the Madrid Roadmap to Climate Neutrality influence the output/outcome indicators are provided.

The elaboration of Madrid’s SDGs progress report included in Chapter 6 has followed the following steps:

1. Analysis and review of the Madrid SDGs localisation framework, with particular attention to the 104 local targets and 160 local indicators established in the Localisation Strategy for the Sustainable Development Goals of the 2030 Agenda in the City of Madrid21.

The data analysis includes the first Progress Report for the implementation of the Madrid Localisation Strategy 2015-2020, published in July 2022. For 81% of the indicators in this 2015-2020 Progress report, data was measured as of 31 December 2020, integrating the deviation caused by the Covid-19 pandemic. The second Progress Report, which will evaluate the period 2021-2022, is scheduled for publication in 2023. To prepare for this Voluntary Local Review, an internal draft version of the second Progress Report was consulted.

2. Analysis and review of the policy actions implemented by the Madrid City Council, with a particular focus on its Government Operational Programme 2019-202322 and the 899 measures included in it and aligned with 16 of the 17 SDGs (667 to at least one SDG and 114 to two or more). Figure 31 shows the number of actions contributing to the fulfilment of each SDG.

3. Selection of the assessed targets: based on steps 1 and 2, a total of 64 targets of the 17 SDGs are analysed in this first Madrid’s VLR.

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21 See Chapter 2.

22 See Chapter 2.

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### Figure 30. Summary of the 2015-2020 progress for the Madrid SDGs localisation indicators (for the Municipality)

<table>
<thead>
<tr>
<th>2030 Agenda SDGs</th>
<th>Madrid Localisation Actions</th>
<th>Madrid Localisation Targets</th>
<th>Madrid Localisation Indicators</th>
<th>Positive evolution</th>
<th>No evolution</th>
<th>Negative evolution</th>
<th>Non-assessable data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1: End poverty in all its forms everywhere</td>
<td>26</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Goal 3: Ensure healthy lives and promote well-being for all at all ages</td>
<td>13</td>
<td>10</td>
<td>15</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</td>
<td>16</td>
<td>4</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal 5: Achieve gender equality and empower all women and girls</td>
<td>23</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Goal 6: Ensure availability and sustainable management of water and sanitation for all</td>
<td>9</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all</td>
<td>34</td>
<td>8</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</td>
<td>21</td>
<td>13</td>
<td>14</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
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<tr>
<td>Goal 10: Reduce inequality within and among countries</td>
<td>25</td>
<td>10</td>
<td>17</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable</td>
<td>109</td>
<td>13</td>
<td>21</td>
<td>9</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Goal 12: Ensure sustainable consumption and production patterns</td>
<td>13</td>
<td>7</td>
<td>10</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Goal 13: Take urgent action to combat climate change and its impacts</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</td>
<td>23</td>
<td>13</td>
<td>25</td>
<td>16</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total: 91 10 28 31
4. Analysis and review of the two selected flagship projects and the related input/actions with an impact on the city of Madrid and its achievement of the SDGs.

Both projects were analysed, and, when relevant, the SDGs fact sheets developed in Chapter 6 include a specific info box detailing how either Madrid Nuevo Norte or the Madrid Roadmap to Climate Neutrality influence the output/outcome indicators. More than half of the 64 SDGs targets analysed in the VLR, a total of 36 SDGs targets, include inputs from Madrid Nuevo Norte. For the Madrid Roadmap to Climate Neutrality, seven SDGs targets include its inputs in the analysis. Additionally, nine specific territorial zoom-in for Madrid Nuevo Norte are incorporated in the impact analysis.

It should be noted that the urban regeneration project is still in its initial development phase, making it challenging to apply the Global Urban Monitoring Framework or measure the impact on the local SDGs targets of the Madrid Localisation Strategy consistently. Therefore, a flexible and collaborative approach has been applied, reviewing the strategic and technical documents of the project. In parallel, Crea Madrid Nuevo Norte has elaborated a more concrete analysis of the impact of the urban project at the local level applying the same methodology used in this VLR. That specific analysis is available [online](#) and focuses on 51 SDGs targets (Crea Madrid Nuevo Norte, n.d.).
Figure 32. SDGs targets assessed in the Madrid VLR 2023

<table>
<thead>
<tr>
<th>1.a</th>
<th>2.a</th>
<th>3.1</th>
<th>4.1</th>
<th>5.1</th>
<th>6.1</th>
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<td>4.3</td>
<td>5.3</td>
<td>6.3</td>
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<td>8.7</td>
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<td>10.7</td>
</tr>
</tbody>
</table>

Note. Own elaboration.
Figure 33. SDGs targets that incorporate Madrid Nuevo Norte in its input analysis

Note. Own elaboration.

Figure 34. SDGs targets with a Madrid Nuevo Norte territorial zoom-in

Note. Own elaboration.

Figure 35. SDGs targets that incorporate Madrid Roadmap Climate Neutrality in its input analysis

Note. Own elaboration.
5. Selection of indicators and collection of data based on the GUMF methodology framework previously explained at the beginning of this Chapter. Once the SDGs targets were identified, a set of indicators was established to measure impact. The indicators were chosen according to their applicability and availability and the focus on measuring impact.

The collection of necessary data was obtained from sources mentioned in Figure 21. These official reference documents at the European, national and local levels were used to identify indicators because they offer several advantages: (i) the data necessary for calculating them exist in official sources, (ii) they have open and repeatable calculation methodologies, (iii) they are localised, and (iv) they can be updated, as far as possible, beyond the organisation carrying out the analysis (i.e., they can be audited).

Eurostat, Spanish National Statistics Institute (INE) and the Madrid City Council statistics are the official databases used to gather outcome indicators. The effort indicators are compiled from Madrid City Council’s open data sources.

A summary of output indicators by the source is available on page 69. More detail on the indicators and references can be found in the Annexes.

In the case of the output indicators, the ones coinciding with the Global Urban Monitoring Framework indicators or the Spanish Urban Agenda indicators have been specified.

Baseline and target values

To analyse the evolution of the indicators, a baseline was set, which is 2015, the year when the 2030 Agenda was adopted. In addition, a current value (the most recent data available) and a target value were set. The sources used for selecting the target value were the Report of the Spanish Network for 2030 Agenda, the Madrid Localisation Strategy, or the desirable trend for the 2030 horizon. Additionally, some indicators from the Spanish Urban Agenda monitoring and evaluation framework were included to help identity transversal strategies.

In the case of indicators that do not present a specific numerical figure, they have been formulated as a progressive increase or decrease concerning the base value. They are shown in the data analysis as “Trend”.

Triple analysis

When applying the GUMF in terms of the Degree of Urbanization, several output indicators have been measured in a triple analysis: at the municipal, the Greater Madrid Area and the Madrid Functional Urban Area.
### Table 5. Output indicators coinciding with the Spanish Urban Agenda

<table>
<thead>
<tr>
<th>SDG</th>
<th>Target</th>
<th>Output indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDG3</td>
<td>3.6 Reduce Road injuries and deaths</td>
<td>Traffic fatalities</td>
</tr>
<tr>
<td>SDG8</td>
<td>8.5 Full employment and decent work with equal pay</td>
<td>Unemployment rate</td>
</tr>
<tr>
<td>SDG11</td>
<td>11.2 Affordable and sustainable transport systems</td>
<td>Number of passengers in Municipal Public Transport (EMT)</td>
</tr>
<tr>
<td></td>
<td>11.6 Reduce the environmental impact of cities</td>
<td>Air Quality Index</td>
</tr>
<tr>
<td></td>
<td>11.7 Provide access to safe and inclusive green and public spaces</td>
<td>The green area per capita</td>
</tr>
<tr>
<td>SDG13</td>
<td>13.2 Integrate climate change measures into policies and planning</td>
<td>Total greenhouse gas emissions per year</td>
</tr>
</tbody>
</table>

Note. Own elaboration.

### Table 6. Output indicators coinciding with GUMF indicators

<table>
<thead>
<tr>
<th>SDG</th>
<th>Target</th>
<th>Output indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDG1</td>
<td>1.2 Reduce poverty by at least 50%</td>
<td>At-risk-of-poverty rate</td>
</tr>
<tr>
<td>SDG3</td>
<td>3.4 Reduce mortality from non-communicable diseases and promote mental health</td>
<td>Life expectancy at birth</td>
</tr>
<tr>
<td></td>
<td>3.6 Reduce Road injuries and deaths</td>
<td>Traffic fatalities</td>
</tr>
<tr>
<td></td>
<td>5.4 Value unpaid care and promote shared domestic responsibilities</td>
<td>Domestic and care work ratio</td>
</tr>
<tr>
<td></td>
<td>5.5 Ensure full participation in leadership and decision-making</td>
<td>The proportion of seats held by women in sub-national local governments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The ratio between the number of men and women in management positions</td>
</tr>
<tr>
<td>SDG8</td>
<td>8.5 Full employment and decent work with equal pay</td>
<td>Unemployment rate</td>
</tr>
<tr>
<td></td>
<td>8.6 Promote youth employment, education and training</td>
<td>Youth not in education, employment or training (NEET)</td>
</tr>
<tr>
<td>SDG10</td>
<td>10.4 Adopt fiscal and social policies that promote equality</td>
<td>Gini coefficient</td>
</tr>
<tr>
<td>SDG11</td>
<td>11.2 Affordable and sustainable transport systems</td>
<td>Number of passengers in Municipal Public Transport (EMT)</td>
</tr>
<tr>
<td></td>
<td>11.4 Protect the world’s cultural and natural heritage</td>
<td>Cultural Index</td>
</tr>
<tr>
<td></td>
<td>11.6 Reduce the environmental impact of cities</td>
<td>Air Quality Index</td>
</tr>
<tr>
<td></td>
<td>11.7 Provide access to safe and inclusive green and public spaces</td>
<td>The green area per capita</td>
</tr>
<tr>
<td>SDG13</td>
<td>13.2 Integrate climate change measures into policies and planning</td>
<td>Total greenhouse gas emissions per year</td>
</tr>
<tr>
<td>SDG15</td>
<td>15.2 End deforestation and restore degraded forests</td>
<td>Change in tree cover</td>
</tr>
<tr>
<td>SDG16</td>
<td>16.1 Reduce violence everywhere</td>
<td>Crime rate</td>
</tr>
<tr>
<td></td>
<td>16.6 Develop effective, accountable and transparent institutions</td>
<td>Municipal Transparency Index</td>
</tr>
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</table>

Note. Own elaboration.
<table>
<thead>
<tr>
<th>SDG</th>
<th>Target</th>
<th>Output indicator</th>
<th>Territorial analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDG1</td>
<td>1.2 Reduce poverty by at least 50%</td>
<td>At-risk-of-poverty rate</td>
<td>Triple analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At the risk of poverty rate (over 65 years)</td>
<td>Triple analysis</td>
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<tr>
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<td></td>
<td>At the risk of poverty rate (under 18 years)</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>SDG3</td>
<td>3.4 Reduce mortality from non-communicable diseases and promote mental health</td>
<td>Life expectancy at birth</td>
<td>Triple analysis</td>
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<tr>
<td></td>
<td></td>
<td>Premature mortality rate</td>
<td>Triple analysis</td>
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<td></td>
<td>3.6 Reduce Road injuries and deaths</td>
<td>Traffic fatalities</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>SDG4</td>
<td>4.2 Equal access to quality pre-primary education</td>
<td>Children 0-4 years in daycare or school</td>
<td>Triple analysis</td>
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<td></td>
<td></td>
<td>Productivity ratio</td>
<td>Triple analysis</td>
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<tr>
<td></td>
<td></td>
<td>Small and Medium Enterprises per 1,000 inhabitants</td>
<td>Triple analysis</td>
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<tr>
<td></td>
<td>4.4 Increase the number of persons with relevant skills for financial success</td>
<td>The proportion of the population aged 25-64 qualified with the highest level of education</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>SDG5</td>
<td>5.1 End discrimination against women and girls</td>
<td>Difference between at-risk-of-poverty rate by gender</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>SDG7</td>
<td>7.3 Double the improvement in energy efficiency</td>
<td>Energy intensity rate</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>SDG8</td>
<td>8.1 Sustainable economic growth</td>
<td>Gross Domestic Product annual growth rate</td>
<td>Triple analysis</td>
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<tr>
<td></td>
<td>8.2 Diversify, innovate and upgrade for economic productivity</td>
<td>Productivity ratio</td>
<td>Triple analysis</td>
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<tr>
<td></td>
<td></td>
<td>Energy intensity rate</td>
<td>Triple analysis</td>
</tr>
<tr>
<td></td>
<td>8.3 Promote policies to support job creation and growing enterprises</td>
<td>Small and Medium Enterprises per 1,000 inhabitants</td>
<td>Triple analysis</td>
</tr>
<tr>
<td></td>
<td>8.4 Increase the number of persons with relevant skills for financial success</td>
<td>The proportion of the population aged 25-64 qualified with the highest level of education</td>
<td>Triple analysis</td>
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<tr>
<td></td>
<td>8.5 Full employment and decent work with equal pay</td>
<td>Unemployment rate</td>
<td>Triple analysis</td>
</tr>
<tr>
<td></td>
<td>8.9 Promote beneficial and sustainable tourism</td>
<td>Tourism GDP growth</td>
<td>Madrid Functional Urban Area</td>
</tr>
<tr>
<td>SDG9</td>
<td>9.3 Increase access to financial services and markets</td>
<td>Employment dependency ratio by sector</td>
<td>Triple analysis</td>
</tr>
<tr>
<td></td>
<td>9.5 Enhance research and upgrade industrial technologies</td>
<td>Number of national patents with an applicant from the city of Madrid</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>SDG10</td>
<td>10.4 Adopt fiscal and social policies that promote equality</td>
<td>Gini coefficient</td>
<td>Triple analysis</td>
</tr>
<tr>
<td></td>
<td>10.7 Responsible and well-managed migration policies</td>
<td>Foreign employment rate</td>
<td>Triple analysis</td>
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<tr>
<td></td>
<td>11.1 Safe and affordable housing</td>
<td>Housing Access Index</td>
<td>Triple analysis</td>
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<td></td>
<td>11.2 Secure water supply and sanitation</td>
<td>Quality of potable water</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>SDG11</td>
<td>12.6 Encourage companies to adopt sustainable practices and sustainability reporting</td>
<td>Number of organisations with eco-management and audit scheme</td>
<td>Greater Madrid Area and Municipality</td>
</tr>
<tr>
<td></td>
<td>16.1 Reduce violence everywhere</td>
<td>Crime rate</td>
<td>Greater Madrid Area and Municipality</td>
</tr>
<tr>
<td>SDG16</td>
<td>17.1 Mobilise resources to improve domestic revenue collection</td>
<td>Strength and autonomy of the municipal institution in budgetary terms</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>SDG17</td>
<td>17.4 Assist developing countries in attaining debt sustainability</td>
<td>Debt per GDP</td>
<td>Triple analysis</td>
</tr>
<tr>
<td></td>
<td>17.8 Strengthen the science, technology and innovation capacity of least developed countries</td>
<td>Debt per inhabitant</td>
<td>Triple analysis</td>
</tr>
</tbody>
</table>

Note. Own elaboration.
Summary of Output Indicators by source per SDG

* The sum of indicators in this summary does not correspond to the total number of output indicators in the analysis, for some of these indicators are present in more than one source.
<table>
<thead>
<tr>
<th>Target</th>
<th>Indicator</th>
<th>Level</th>
<th>ONU</th>
<th>UN-HABITAT</th>
<th>IRC</th>
<th>REDS</th>
<th>MADRID S3A</th>
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<tbody>
<tr>
<td>1.2</td>
<td>At-risk-of-poverty rate</td>
<td>Triple Analysis</td>
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<tr>
<td>1.3</td>
<td>At-risk-of-poverty rate (Over 65 years)</td>
<td>Triple Analysis</td>
<td></td>
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<tr>
<td>1.3</td>
<td>At-risk-of-poverty rate (Under 18 years)</td>
<td>Triple Analysis</td>
<td></td>
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<tr>
<td>1.3</td>
<td>Number of households receiving Minimum Insertion Income (MII) or income guarantee programme in the city of Madrid</td>
<td>Madrid municipality</td>
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<tr>
<td>1.4</td>
<td>Percentage of people with delay in basic household supply payments</td>
<td>Madrid municipality</td>
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<tr>
<td>1.4</td>
<td>Percentage of population unable to maintain a comfortable temperature at home</td>
<td>Madrid municipality</td>
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<tr>
<td>2.1</td>
<td>Percentage of people who cannot afford a meal of meat, poultry or fish at least every second day</td>
<td>Madrid municipality</td>
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<tr>
<td>2.2</td>
<td>Share of overweight or obese children in the population</td>
<td>Madrid municipality</td>
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<td>2.3</td>
<td>Kilograms of proximity products commercialized in Mercamadrid</td>
<td>Madrid municipality</td>
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<tr>
<td>3.4</td>
<td>Life expectancy at birth</td>
<td>Municipality/City</td>
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<tr>
<td>3.4</td>
<td>Premature mortality rate</td>
<td>Triple Analysis</td>
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<tr>
<td>3.5</td>
<td>Harmful alcohol consumption per capita (15 years of age and older)</td>
<td>Madrid municipality</td>
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<td>3.6</td>
<td>Traffic fatalities</td>
<td>Triple Analysis</td>
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<td>3.7</td>
<td>Proportion of appointments for maternity care and examination of adult women attended in the Municipal Community Health Centers</td>
<td>Madrid municipality</td>
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<tr>
<td>3.7</td>
<td>Proportion of sexual and reproductive health appointments attended at Municipal Community Health Centers</td>
<td>Madrid municipality</td>
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<tr>
<td>3.8</td>
<td>Population with household health expenditures greater than 10% of total household expenditure or income</td>
<td>Madrid municipality</td>
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<td>3.8</td>
<td>Population with household health expenditures greater than 25% of total household expenditure or income</td>
<td>Madrid municipality</td>
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<td>4.1</td>
<td>Uneducated young people</td>
<td>Madrid municipality</td>
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<td>4.2</td>
<td>Children 0-4 in day care or school</td>
<td>Triple Analysis</td>
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<td>4.4</td>
<td>Proportion of population aged 25-64 qualified with the highest level of education</td>
<td>Triple Analysis</td>
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<tr>
<td>4.7</td>
<td>Number of beneficiaries of formal education (primary, secondary and university education) trained in projects co-financed by the Madrid City Council on Education for Sustainable Development and Global Citizenship</td>
<td>Madrid municipality</td>
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<td>5.1</td>
<td>Difference between at-risk-of-poverty rate by sex</td>
<td>Triple Analysis</td>
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<tr>
<td>5.2</td>
<td>Number of fatal victims of gender violence</td>
<td>Madrid municipality</td>
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<td>Victims of gender-based violence</td>
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<td>Domestic and care work ratio</td>
<td>Madrid municipality</td>
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<td>5.5</td>
<td>Proportion of seats held by women in local governments</td>
<td>Madrid municipality</td>
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<td>6.3</td>
<td>Percentage of wastewater generated in the city of Madrid that is treated in facilities with nutrient removal systems and tertiary advanced filtration and disinfection</td>
<td>Madrid municipality</td>
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<td>6.4</td>
<td>Domestic water consumption per capita</td>
<td>Madrid municipality</td>
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<td>Total water consumption per capita</td>
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<td>6.6</td>
<td>Kilometres of restored watercourses on urban land</td>
<td>Madrid municipality</td>
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<td>7.2</td>
<td>Percentage of total electrical energy consumed that is generated by municipal PV installations</td>
<td>Madrid municipality</td>
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<td>7.2</td>
<td>Renewable energy share of energy consumed</td>
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<td>Energy intensity</td>
<td>Triple Analysis</td>
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<td>8.1</td>
<td>Gross Domestic Product annual growth rate</td>
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<td>Productivity ratio</td>
<td>Triple Analysis</td>
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<td>SMEs per 1000 inhabitants</td>
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<td>8.4</td>
<td>Percentage of public contracts with fair trade and</td>
<td>Madrid municipality</td>
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<td>sustainable consumption and production clauses out of total</td>
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<td>Employment rate</td>
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<td>Female employment rate</td>
<td>Madrid municipality</td>
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<td>Unemployment rate</td>
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<td>Youth unemployment rate</td>
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<td>8.9</td>
<td>Youth not in education, employment or training (NEET)</td>
<td>Madrid municipality</td>
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<td>8.10</td>
<td>Tourism GDP growth</td>
<td>Triple Analysis</td>
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<td>8.11</td>
<td>Hospitality industry employment as a proportion of total</td>
<td>Madrid municipality</td>
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<td>8.12</td>
<td>City Transport Performance</td>
<td>Madrid municipality</td>
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<tr>
<td>8.13</td>
<td>Employment dependency ratio by sector</td>
<td>Triple Analysis</td>
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<tr>
<td>8.14</td>
<td>Total industry greenhouse gas emissions per industry GDP</td>
<td>Madrid municipality</td>
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<td>9.1</td>
<td>Number of European patents with an applicant from the city of Madrid</td>
<td>Madrid municipality</td>
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<td>9.2</td>
<td>Number of National patents with an applicant from the city of Madrid</td>
<td>Madrid municipality</td>
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<td>9.3</td>
<td>Startup attraction Index</td>
<td>Madrid municipality</td>
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<td>9.4</td>
<td>Unemployed people with disabilities</td>
<td>Madrid municipality</td>
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<td>9.5</td>
<td>Gini coefficient</td>
<td>Triple Analysis</td>
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<td>9.6</td>
<td>SBO/S2O income distribution</td>
<td>Madrid municipality</td>
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<td>9.7</td>
<td>Foreign employment rate</td>
<td>Triple Analysis</td>
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<td>9.8</td>
<td>Housing Access Index</td>
<td>Municipality/City</td>
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<td>9.9</td>
<td>Percentage of the household budget spent on housing, water, electricity,</td>
<td>Madrid municipality</td>
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<td>gas and other fuels</td>
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<td>9.10</td>
<td>Population located living in vulnerable sections</td>
<td>Triple Analysis</td>
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<td>10.1</td>
<td>Number of passengers in Municipal Public Transport (EMT)</td>
<td>Madrid municipality</td>
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<td>10.2</td>
<td>Number of passengers in Municipal Public Transport (Metro Madrid)</td>
<td>Madrid municipality</td>
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<td>10.3</td>
<td>Cultural Index</td>
<td>Madrid municipality</td>
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<td>10.4</td>
<td>Protection and management of the Historic-Artistic Heritage per inhabitant</td>
<td>Madrid municipality</td>
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<td>10.5</td>
<td>Air quality Index</td>
<td>Madrid municipality</td>
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<td>10.6</td>
<td>Urban Domestic Waste per capita</td>
<td>Madrid municipality</td>
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<td>10.7</td>
<td>Green area per capita</td>
<td>Madrid municipality</td>
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<td>10.8</td>
<td>Design volume (m³) of installed Sustainable Urban Drainage Systems (SUDS)</td>
<td>Madrid municipality</td>
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<td>12.1</td>
<td>Share of non-recovered organic waste in the total input of goods</td>
<td>Madrid municipality</td>
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<td>12.2</td>
<td>Recycling rate</td>
<td>Madrid municipality</td>
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<td>12.3</td>
<td>EMAS registered organisations</td>
<td>Municipality/City</td>
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<td>12.4</td>
<td>Proportion of municipal contracts incorporating social or environmental</td>
<td>Madrid municipality</td>
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<tr>
<td>12.5</td>
<td>Share of population with access to an urban vegetable garden no more than</td>
<td>Madrid municipality</td>
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<td>10 minutes from where they live in</td>
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<td>12.6</td>
<td>Number of people made aware of projects co-financed by the City Council</td>
<td>Madrid municipality</td>
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</table>
6. Reporting on impact analysis through SDG target fact sheets

After collecting the data and calculating the indicators, a fact sheet analysing the different goals was created, adapting the GUMF blocks model already presented in the methodology framework.

The template fact sheet for each Madrid localisation SDGs target includes:

1. Madrid Localisation Strategy target, listed under "Madrid Target".


4. The selected “input” indicators (effort) used to monitor the implementation of the identified “input” actions.

5. Proposed “Output” indicators (result) to measure the achievement of the Madrid Localisation SDGs targets.

6. Graphs showing a visual representation of the “output” indicator evolution over time, and a prediction of the behaviour towards the future or the distance from the set target for that indicator.

When flagship projects, especially Madrid Nuevo Norte due to its scale, have a significant impact on the analysis of SDG performance by the city of Madrid, additional specific information was added to the corresponding fact sheet to highlight its relevance.

Finally, an impact box was created for each fact sheet to interpret the alignment and coherence of input (actions), output, and outcome indicators in the Madrid Localisation SDG target. The example below shows the template used for the fact sheets.
11.7 Provide access to safe and inclusive green and public spaces

**DESCRIPTION**

By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.

**MADRID TARGET**

Localisation target 11.12 - By 2030 progressively increase green areas in the city.

**INPUT**

**Localisation Strategy for the SDGs of the 2030 Agenda**

Increase and improve the amount and quality of the green urban areas in the city.

**Government Operational Programme 2019 - 2023**

**Madrid City for all Families**

Enhancing safety and improving emergency response

- Safety, coexistence and recovery of particularly degraded neighbourhoods.

**Madrid Sustainable City**

Making Madrid a green and clean city

- Maintenance and improvement of trees, parks and green areas.
- Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.
- Start-up of large urban development projects.

18 allotments of more than 1ha for basic green areas.

- Dense, compact, mixed-use city model to generate living public spaces, with dense city building densities 1.05-1.75.
- Design an environmental axis that will function as a structuring axis of the development and also as a connector between Madrid and nature, also allowing the conservation of the existing cultural heritage in the area by integrating the two shrines located in the project within the new environmental corridor.
- Creation of more than 445,000 m2 of new green areas that promote biodiversity and the variety of ecosystems and improve comfort conditions in the public space with the use of plant species adapted to Madrid’s climate with low water consumption.

* When pertinent, identified and aligned actions from Madrid’s 360 Roadmap will be also added in a separate Input box.
Public open and green spaces are pieces of land that are undeveloped or land with no buildings that is accessible to the public without charge, and provides recreational areas for residents to enhance the beauty and environmental quality of neighbourhoods. Public spaces in general are meeting or gathering places that exist outside the home and workplace, with the particularity that they could also have functional uses. Safe and green public spaces are very important for social interaction and economic activities for women, children, elder, and people with disabilities to improve the development and desirability of a community.

Moreover, public spaces support people to be physically active, linked to SDG 3; they intend to be safe spaces for women and girls for reducing violence against them, linked to SDG 5; they serve as workplaces for many informal workers, linked to SDG 8; and providing green and efficient public spaces in cities addresses both climate change mitigation and resilience, tackling SDG 13. Therefore, public spaces are an opportunity for cities like Madrid to address SDGs in a transversal way.

* When pertinent, an additional "Zoom-in to Madrid Nuevo Norte" box is added to the fact sheet after the Impact box previously shown.

* When the Output indicator graph’s disaggregation level is the triple analysis, the caption is as follows:
CHAPTER 6
Measuring the SDGs
Progress in Madrid
1.2 Reduce poverty by at least 50%

DESCRIPTION
By 2030, reduce at least by half the proportion of men, women, and children of all ages living in poverty in all its dimensions according to national definitions.

MADRID TARGET
Localisation Target 1.1 - By 2030, halve the risk of poverty or social exclusion.

INPUT
Government Operational Programme 2019 - 2023
Madrid, a city for all families
Increase the intervention capacity of municipal services to help the most vulnerable individuals:
· Offering assistance through the City Council Social Services;
· Providing social and fiscal support for families, including their most vulnerable members such as older persons, dependent person, and children.
· Offering tax reductions in favour of families.

OUTPUT INDICATOR
At risk of poverty rate
<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
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</table>

[Soc)}
To make progress towards reducing poverty, a multifaceted approach that addresses various dimensions of poverty, including access to education, healthcare, and social protection, is required. Although the poverty indicator in Madrid is close to meeting its target, taking the final step towards compliance may necessitate specific actions to prevent situations of poverty or to create opportunities for at-risk groups.
1.3 Implement social protection systems

DESCRIPTION
Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.

MADRID TARGET
Localisation Target 1.2 – By 2030, continuously improve the care of older persons by the municipal social services.
Localisation Target 1.3 – By 2030, progressively reduce the percentage of persons feeling lonely in the city of Madrid.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
- Increase of the economic aid programmes directed to basic needs coverage of vulnerable population

Government Operational Programme 2019 - 2023

Madrid, a city for all families
Increase the intervention capacity of municipal services to help the most vulnerable persons:
- Reformulate the Social Services care model.
- Expand the municipal network of Social Services Centres and Primary Social Care.
- Take urgent action through Social Services.
Provide social and fiscal support for families and their most vulnerable members, such as older persons, dependent persons, and children.
Improve the quality of life for families.
Enhance safety and improving emergency response.
Provide citizen protection and service.

Madrid, a sustainable city
Promote territorial transformation and rebalancing through rehabilitation, regeneration, and urban renewal.
Renovate public spaces with accessibility and sustainability criteria.

Madrid, responsible, transparent and easy
Encourage citizen participation and promote voluntarism.
Implement open government policies and citizen participation.
INDICATORS TO MONITOR THE IMPLEMENTATION

Percentage of persons over 80 years of age supported by municipal social services 61.01% (2021)

Number of municipal financial economic aids (school canteen) for basic needs coverage 22,969 (2021)

OUTPUT INDICATOR

Number of families receiving the Regional Minimum income (RMI) or income guarantee programmes

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Number</td>
<td>2020</td>
<td>Annual</td>
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</table>

At risk of poverty rate (Over 65 years)

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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<tr>
<td>Triple analysis</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
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</table>
Despite the pandemic reversing decades of progress in poverty reduction, the rate of decrease in Madrid city has slowed down. To achieve the target of reducing poverty by 2030, it is necessary to increase the percentage of aid and plans for vulnerable groups, ensuring they reach all those in need.
1.4 Equal rights to ownership, basic services, technology and economic resources

DESCRIPTION

By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

MADRID TARGET

Localisation Target 1.5 - By 2030, reduce by half the proportion of persons living in energetic poverty.

Localisation Strategy for the SDGs of the 2030 Agenda

- Support families with difficulties to pay for their home’s basic supply

Government Operational Programme 2019 - 2023

Madrid, a city for all families

Social and fiscal support for families and their most vulnerable members, such as the older persons, dependent persons and children.

- Expansion of the municipal network of Day Care and Senior Citizen Centres
- Healthy and Sustainable Food Strategy

Facilitating education and housing as a vector for personal and social development.

- Access to housing
- Fight against homelessness, with housing and employment as the main lines of intervention.
- Fight against homelessness
- Enhancing safety and improving emergency response
- Fight against ‘illegal squatting’.

Madrid, a sustainable city

Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.

- Housing Observatory.
Madrid, responsible, transparent and easy

Addressing the impact of Covid-19:

- Guarantee of basic public services at all times
- Help and support to those at home, facilitate confinement.
- Guarantee of food, housing and other basic needs, especially for the most needy.
- Economic and fiscal aid to mitigate the negative economic effects that may occur in certain sectors of the City’s economy.

Twenty per cent of the new housing built in Madrid Nuevo Norte will be subsidized housing (limited price housing).

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<th>Disaggregation level</th>
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<th>Years</th>
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<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
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**Percentage of persons who fall behind in their utility bill payments**
Further efforts are required to achieve the overall target, as the second output indicator shows a step back from the ultimate 2030 target. Like many other targets, this one should not be analysed in isolation, as factors such as employment and income can have a significant impact on both output indicators graphed above.

Uprising transversal projects like Madrid Nuevo Norte could contribute to ensuring that all men and women have equal access to economic resources, basic services, and control over land and other forms of property.
2 ZERO HUNGER
2.1 Universal access to safe and nutritious food

DESCRIPTION

By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

MADRID TARGET

Localisation Target 2.1 - By 2030, reduce severe material deprivation in the city of Madrid.

INPUT

Government Operational Programme 2019 - 2023

Madrid, a city for all families

Increase the intervention capacity of municipal services to help the most vulnerable persons.

- Expansion of the municipal network of Social Services Centres - Primary Social Care
- Assistance through Social Services

Social and fiscal support for families and their most vulnerable members, such as the older persons, dependent persons and children.

- Healthy and Sustainable Food Strategy

OUTPUT INDICATOR

Percentage of the population who cannot afford a meal of meat, poultry, or fish at least every second day

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<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
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<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
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![Graph showing the percentage of the population who cannot afford a meal of meat, poultry, or fish at least every second day.](image-url)
In contrast to the behaviour of housing and poverty indicators in SDG1, the number of persons suffering from food insecurity is gradually increasing in Madrid city. The lack of access to safe and nutritious food among the poor and vulnerable population, including infants, directly affects the well-being of children and increases the prevalence of malnutrition, which is related to SDG target 2.2.

To improve progress towards SDG2.1 target, responsive and preventive actions must be taken to promote accessible food prices and/or subsidies for those in need.
2.2 End all forms of malnutrition

DESCRIPTION

By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

MADRID TARGET

Localisation Target 2.2 - By 2030, reduce overweight and obesity in the population.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda

Increasing the support for adult and child nutrition to reduce obesity and overweight

Increase the accessibility to sport facilities

OUTPUT INDICATOR

Share of child population (aged between 2 and 17) with a Body Mass Index (BMI) of overweight or obesity

<table>
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<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2020</td>
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![Trend graph showing decrease in BMI percentage over years](image-url)
IMPACT

Madrid city has developed good practices for ensuring accessibility to sports facilities, with increasing support for both adults and children. Regular physical activity leads to a reduction in overweight and body mass indexes in both adult and infant population. When accompanied by good nutrition programs, as outlined in other SDG2 targets, Madrid can successfully ensure healthy lives and promote well-being for all ages. These efforts can also have a positive impact on targets in SDG3.
2.3 Double the productivity and incomes of small-scale food producers

DESCRIPTION

By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

MADRID TARGET

Localisation Target 2.3 - By 2030, promote the marketing of local and organic products, highlighting circular economy and the work of farmers, livestock breeders and wholesalers in sustainable and efficient marketing.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Promotion of proximity and ecological product commercialization

INDICATORS TO MONITOR THE IMPLEMENTATION

Number of stalls in municipal markets offering local organic food products 71 (2021)
## IMPACT

Madrid’s agricultural productivity has progressed significantly recently, and given the upward trend, it is likely to achieve the target before 2030. The achievement of this target largely depends on promoting sustainable production systems and increasing investment in rural and agricultural areas, with particular attention to women, family farmers, pastoralists, and fishers. Fostering local production by supporting and connecting local producers to sell in local commerce and markets is key.
3 GOOD HEALTH AND WELL-BEING
3.4 Reduce mortality from non-communicable diseases and promote mental health

DESCRIPTION
By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

MADRID TARGETS
Localisation Target 3.1 - Improve the health of the population of Madrid through the promotion of physical activity.
Localisation Target 3.2 - By 2030, life expectancy at birth will have increased by more than 2.3 years for men and by more than 0.5 years for women over the baseline.
Localisation Target 3.3 - By 2030, the gap in life expectancy at birth between city districts will be reduced to approximately 1.5 years between the highest and lowest for men and 1 year for women.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
- Increase the number of spots in municipal sports centres for persons over 65 years enrolled in activities.
- Sports prescription that allows primary care centres to prescribe physical activity in their reference sports centre
- Children’s sports schools for children aged between 3 and 13 years structured in several levels, including the initiation level.

Government Operational Programme 2019 - 2023
Madrid, a city for all families
Enhancing safety and improving emergency response
- Municipal Emergency Plan of the Madrid City Council
- Strengthening of security, emergency and health areas
- Reinforcement of security, emergency and mobility forces
- Citizen protection and service
To guarantee the sanitary conditions of the City and promote healthy habits that improve the quality of life.
- Prevention of disease and promotion of health and wellness
Madrid, an open, cultured and sporting city. Increase sports infrastructures and services and promote sports as a healthy and inclusive tool.
- Promotion of sports
- Promotion of educational centres as promoters of physical activity and sports.
- Health, social inclusion and equity through sport
- New sports infrastructure
- Remodelling of sports infrastructure

INDICATORS TO MONITOR THE IMPLEMENTATION

Number of occupied spots in the activities organized for the older persons  
12,225 (2021)

Number of districts implementing the “sports prescription” in at least one municipal sport facility  
11 (2021)

Number of healthy routes of the “Walking People Project” (WAP)  
21 (2021)

Number of students in children’s sports initiation schools in municipal sports centres  
27,022 (2021)

Life expectancy at birth

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<th>Disaggregation level</th>
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<th>Years</th>
<th>Update Frequency</th>
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<tbody>
<tr>
<td>City/Municipality</td>
<td>Years</td>
<td>2021</td>
<td>Annual</td>
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Society
Safe & Peaceful

OUTPUT INDICATOR

Greater Madrid Area
Municipality

Males
Females
Prior to the Covid-19 pandemic, progress had been made in many health areas. The disruption caused by the pandemic halted this progress, having negative effects, particularly on mental health. Despite this setback, and analysing the numbers from the pandemic period separately, the increase in the number of sports centres and the prescription of physical activity by primary care centres, as well as the provision of children’s sport facilities in schools, has had a significant impact on health and the increase in life expectancy in Madrid. These improvements also reduce avoidable mortality related to both preventable and treatable causes of death.
3.5 Prevent and treat substance abuse

DESCRIPTION
Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

MADRID TARGET
Localisation Target 3.4 - By 2030, reduce progressively the prevalence of online and face-to-face gambling in students between 14 and 18 years of age.
Localisation Target 3.5 - By 2030, progressively reduce the number of persons affected by drug dependency.

INPUT
Localisation Strategy for the SDGs of the 2030 Agenda
Improve drug dependency attention in municipal drug dependency attention centres

INDICATORS TO MONITOR THE IMPLEMENTATION
Number of requests for care in the municipal Drug Dependency Care Centres
1,720 (2021)
Several factors, including socioeconomic aspects, the state of the city design, access to and use of health services, and lifestyle-related risk factors such as alcohol and drug consumption and dependency, affect the health of individuals. The decreasing requests for care for drug dependency reflected in the indicator to monitor Madrid’s action could indicate a reduction in drug abuse; however, this is contrary to the increase in the consumption of alcohol reflected in the output indicator, which had the opposite effect. Improving not only drug dependency attention in municipal drug dependency centres but also controlling the consumption, acquisition, and addiction to alcohol and drugs will contribute to public health issues related to SDG3 and SDG11.2, ensuring a safe and resilient city. Additionally, it could reflect a reduction in alcohol or drug dealing in the streets (often accompanied by violence) in favour of enhancing public safety perception.
3.6 Reduce road injuries and deaths

**DESCRIPTION**
By 2020, halve the number of global deaths and injuries from road traffic accidents.

**MADRID TARGET**
Localisation Target 3.6 - By 2030, reduce the number of road traffic fatalities and serious injuries by 50 per cent in comparison to 2019 data.

**INPUT**

**Localisation Strategy for the SDGs of the 2030 Agenda**
Road Safety Plan 2021-2030
Government Operational Programme 2019 - 2023
Madrid, a sustainable city
Ensuring sustainable mobility
  • Integral Road Safety Plan

Reducing the number of lanes for road traffic and implementing traffic calming measures that will not only reduce pollution but also reduce vehicle speeds.

**INDICATORS TO MONITOR THE IMPLEMENTATION**
Number of persons seriously injured in road accidents

558 (2021)
The mortality rate resulting from injuries sustained in traffic accidents is high among individuals aged over 80. In comparison to the reports from 2019, the current number of fatalities and serious injuries caused by road traffic accidents has decreased by 50 percent. Implementing measures to reduce vehicle speeds and promote pedestrian circulation, such as those to be introduced in the Madrid Nuevo Norte project, could significantly improve pedestrian safety and decrease the incidence of collisions, fatalities, and serious injuries resulting from traffic accidents.
Universal access to sexual and reproductive care, family planning and education

**DESCRIPTION**

By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

**MADRID TARGET**

Localisation Target 3.7 - By 2030, increase family planning and sexual health care. Localisation Target 3.8 - By 2030, increase health care for early detection of Sexually Transmitted Infections (STIs).

---

**Localisation Strategy for the SDGs of the 2030 Agenda**

"Madrid Salud" programme aimed at promoting sexual and reproductive health, as well as the prevention of unplanned/unwanted pregnancies and difficulties associated with sexualities (HIV/STIs, sexual dysfunctions, discrimination, sexual and gender-based violence, etc.)

**Government Operational Programme 2019 - 2023**

**Madrid, a sustainable city**

Recover and preserve public spaces and provide them with new facilities.

- Public spaces renovated with accessibility and sustainability criteria
### Percentage of consultations on Sexually Transmitted Infections (STIs) in Medical Specialty Centres

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
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</tbody>
</table>

![Graph showing trend of STI consultations](image)

#### Municipality Goal

### Percentage of new family planning consultations within the sexual and reproductive health program

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing trend of family planning consultations](image)

#### Municipality Goal
IMPACT

The percentage of women aged 15-49 years who are able to make informed decisions regarding their sexual relations, contraceptive use, and reproductive healthcare has increased in Madrid due to the Madrid Salud Programme’s initiative to promote sexual and reproductive health, as well as the prevent unplanned pregnancies and address issues related to sexualities such as HIV/STIs, sexual dysfunctions, discrimination, and sexual and gender-based violence.

To ensure equitable and comprehensive care for women seeking the programme’s maternity care and reproductive health services, follow-up actions must be considered. It’s essential to not only focus on the number of appointments, as this can be influenced by various factors, but also on the quality of care provided.
3.8 Achieve universal health coverage

DESCRIPTION
Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

MADRID TARGET
No localisation target included in the Madrid’s “Localisation Strategy for the SDGs of the 2030 Agenda”. Spain guarantees universal coverage and free healthcare since 1986.

INPUT

**Government Operational Programme 2019 - 2023**

**Madrid, a city for all families**
Increase the intervention capacity of municipal services to help the most vulnerable persons.

- Expansion of the municipal network of Social Services Centres - Primary Social Care
- Social and fiscal support for families and their most vulnerable members, such as the older persons, dependent persons and children.
- Expansion and improvement of services for the older persons
- Prevention of loneliness in the older persons
- Expansion of the municipal network of Day Care and Senior Citizen Centres

To guarantee the sanitary conditions of the City and promote healthy habits that improve the quality of life.
Population with household health expenditures greater than 10% of total household expenditure or income

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
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</tbody>
</table>

![Graph showing Municipality Projection Goal for population with household health expenditures greater than 10% of total household expenditure or income.]

Population with household health expenditures greater than 25% of total household expenditure or income

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing Municipality Projection Goal for population with household health expenditures greater than 25% of total household expenditure or income.]

**IMPACT**

Public health is closely intertwined with all SDGs, and local governments must ensure that their populations have affordable access to health services. In this regard, Madrid’s indicators show that health expenditure in the municipality is stabilizing at less than 25 percent, and not much more than 10 percent of their total housing expenditure income. The general trend in the indicators shows that overall expenditure is stable or decreasing, with smaller peaks in both indicator graphs.
4 QUALITY EDUCATION
4.1 Free primary and secondary education

DESCRIPTION
By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.

MADRID TARGET
No localisation target included in the Madrid’s “Localisation Strategy for the SDGs of the 2030 Agenda”. Primary and secondary school are compulsory and free in Spain for all children between the ages of 6 and 16 years old.

INPUT

Government Operational Programme 2019 - 2023
Madrid, an open, cultured and sporting city to promote culture in its universal and local perspective.
- Support for reading and the book sector

OUTPUT INDICATOR

Uneducated young persons

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
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</table>

![Graph showing the trend of uneducated young persons over years]
IMPACT

The long-term consequences of a lack of education can range from unemployment and poor economic conditions to poor health and low life expectancy. To combat this, efforts must be made to construct schools and promote reading and books. These inputs are expected to increase access to formal and informal education for young people and maintain the current decreasing trend of uneducated youth shown in the graph. While Madrid’s Localisation Strategy may not be directly aligned with this target, inputs related to Targets 4.2 and 4.4, which also aim to increase access to education and develop skills, could indirectly impact the output indicator for Target 4.1.
4.2
Equal access to quality pre-primary education

DESCRIPTION
By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.

MADRID TARGET
Localisation target 4.1 - Steadily improve the coverage of public education for children aged 0-3 years old in the city of Madrid.

INPUT
Localisation Strategy for the SDGs of the 2030 Agenda
Government Operational Programme 2019 - 2023
Madrid, a city for all families
Facilitating education and housing as a vector for personal and social development.
  • Access to nursery schools and bilingualism

OUTPUT INDICATOR
Children 0-4 years in daycare or school

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple Analysis</td>
<td>x 1,000 inh.</td>
<td>2020</td>
<td>Annual</td>
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</tbody>
</table>

![Graph showing the number of children 0-4 years in daycare or school from 2015 to 2020 with projections and goals.]
Providing equal access to quality pre-primary education, early childhood education and care is often the initial step in a child’s educational journey. An inclusive and high-quality education that eliminates school segregation is a crucial aspect of sustainable development. Madrid is making progress towards achieving its 2030 target for early childhood education and training, which establishes a solid foundation for other education targets that have a significant impact on equality, culture, and environmental development in the future.

**Zoom-in: Madrid Nuevo Norte**

**4.2 Equal access to quality pre-primary education**

**Madrid Nuevo Norte Impact**
The proposed educational infrastructure in Madrid Nuevo Norte will contribute to a decrease in the number of households without access to educational institutions in the area. This will support Madrid’s strategic objective of promoting accessibility to education, thereby having a positive impact on indicators related to target 4.2.

**Madrid Nuevo Norte Indicator**
Accessibility to early childhood education services: population within 5 minutes walking distance of a public day care centre.

**PRESENT DAY**

- **Area of influence without MNN**
  - Level of access: 52.4%

**OUTPUT**

- **Area of influence with MNN**
  - Level of access: 65.7%
- **Madrid Nuevo Norte**
  - Level of access: 76.0%
4.4 Increase the number of persons with relevant skills for financial success

DESCRIPTION
By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

MADRID TARGET
Localisation target 4.2 - By 2030, encourage adolescents and young persons in vulnerable situation to access socio-educational programmes and to enter the labour market.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
ASPA projects (Socio-Educational and Pre-vocational Support for Adolescents and Youth)

Government Operational Programme 2019 - 2023
Madrid, a city of opportunities
Boosting the economy and supporting small businesses and the hotel and catering industry
- Revitalization of commercial areas and sectors
- E-commerce training, outreach and information
Promote entrepreneurship, competitiveness, innovation and technological knowledge.
- Promotion of entrepreneurial culture
Generate employment opportunities
- Employment and Training Plans

Madrid, a city for all families
Social and fiscal support for families and their most vulnerable members, such as the older persons, dependent persons and children.
- Expansion of the municipal network of Youth Centres

Madrid, responsible, transparent and easy
Promote the professional development of municipal personnel
- Madrid 2020-2023: Strategy for Transforming Human Resources Management

Increase in the offer of public education services, construction of three new pre-primary education facilities, three pre-primary and primary education facilities, two secondary education facilities and a vocational training centre.
**OUTPUT INDICATOR**

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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<tbody>
<tr>
<td>Triple Analysis</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
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</table>

**Proportion of the population aged 25-64 qualified with the highest level of education**

**IMPACT**

Education is a prerequisite for achieving many other Sustainable Development Goals. Education and training are key drivers of growth and jobs as they help improve employability, innovation, and competitiveness. Adult participation in learning refers to persons aged 25 to 64 who receive both formal and non-formal education, including general and vocational education. This empowers individuals to lead healthier and more active lives, and helps to adopt a more sustainable lifestyle.

Madrid has already exceeded the 2030 target for adult participation in learning. This will foster improvements in other education-related targets, particularly those related to employment and sustainability. The City Council of Madrid supports the increase in socio-educational and pre-employment programs, which also have a direct impact on the lives of the younger generation. These numbers affect the GUMF indicator “2.3.2 Youth and adults in formal and non-formal education and training” and the “1.2.6 Multilingual Education inclusive city objective”.

---

Greater Madrid Area — Projection — Goal
Municipality
Functional Urban Area
**4.7**

**Education for sustainable development and global citizenship**

**DESCRIPTION**

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.

**MADRID TARGET**

Localisation target 4.3 - Increase the population of Madrid receiving training in global citizenship, gender equality and responsible and sustainable consumption balancing the relative weight by gender.

Localisation target 4.4 - By 2030, 60 per cent of schools will have participated in municipal environmental education programmes and activities.

**INPUT**

**Localisation Strategy for the SDGs of the 2030 Agenda**

Increase public training related to global citizenship, gender equality and sustainable and responsible consumption

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**

Promote entrepreneurship, competitiveness, innovation and technological knowledge.

- Smart City Strategy

To guarantee the rights and duties of consumers and economic agents.

- Consumer protection and defence

Generate employment opportunities

- Employment and Training Plans

**Madrid, responsible, transparent and easy**

Contribute to the fulfilment of the 2030 Agenda and its Sustainable Development Goals.

- Cooperation and global citizenship 2030
Encourage teaching on Botany by publishing a tour guide to Madrid Nuevo Norte plants and flowers.

INDICATORS TO MONITOR THE IMPLEMENTATION

Number of consumers who have received training in consumer awareness. 164,896 (2021)

Percentage of girls or women who have received training in consumer awareness. 48.34% (2021)

Percentage of schools participating in “Educate today for a more sustainable Madrid”, in Environmental Education Centres and in the Sustainable School Gardens Network. 32% (2021)

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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<tbody>
<tr>
<td>Municipality</td>
<td>Number (Cumulative data)</td>
<td>2021</td>
<td>Annual</td>
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</table>

**Number of beneficiaries of formal education (primary, secondary and university education) trained in projects co-financed by the Madrid City Council on Education for Sustainable Development and Global Citizenship**

![Graph showing the number of beneficiaries over the years with a projection and goal.]
Providing guides for teaching Sustainable Development and Global Citizenship contributes to the Madrid city council’s goal of increasing environmental and sustainability education to raise consumer awareness. The inclusion of sustainability and global citizenship training in Madrid’s education programs, as reflected in the output indicator graph, accompanied by practical information, could enhance the preservation of local species and biodiversity. These measures also support Madrid’s target 4.4 of increasing schools’ participation in environmental activities, leading to positive indirect impacts on SDG13 and SDG15, which concern environmental issues.
5.1 End discrimination against women and girls

DESCRIPTION
End all forms of discrimination against all women and girls everywhere.

MADRID TARGET
Localisation target 5.1 - By 2030, eliminate the poverty and social exclusion gap between men and women.

INPUT

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**
Generate employment opportunities
- Employment and Training Plans

**Madrid, a city for all families**
Guarantee equal opportunities between women and men, defend the rights of LGTBI persons and eradicate gender violence
- Ensuring equal opportunity
- Integrated projects for equality

Gender, childhood, adolescence and family analysis study in the project planning stage
OUTPUT INDICATOR

**Difference between at risk of poverty rate by gender**

<table>
<thead>
<tr>
<th>Disaggregation level</th>
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<th>Years</th>
<th>Update Frequency</th>
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<tr>
<td>Triple analysis</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
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**IMPACT**

Women and girls continue to face significant disadvantages resulting from discriminatory laws and practices, with no country having yet achieved gender equality. Discrimination and violence can impede women’s access to employment, which negatively affects their financial independence and the economy as a whole.

Despite improvements in poverty reduction indicators, women are still more exposed to poverty and vulnerability on a broader scale than men, as demonstrated by unequal employment indicators between men and women, as shown in SDG8. When examining the at-risk-of-poverty indicators, the difference between men and women continues to widen.

To narrow the equality gaps, Madrid and other places need to conduct studies to analyze causes and implement actions to increase women’s formal employment and access to social benefits that reduce vulnerability and poverty risk. This effort aligns with SDG10’s goals.
5.2 End all violence against and exploitation of women and girls

DESCRIPTION
Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.

MADRID TARGET
Localisation target 5.2 - By 2030, steadily reduce the number of victims of gender-based violence who need to be monitored and protected by the municipal police.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Increase the number of self-protection workshops and schools from municipal spaces

Government Operational Programme 2019 - 2023

Madrid, a city for all families
Facilitating education and housing as a vector for personal and social development.

- Ensuring equal opportunity
Guarantee equal opportunities between women and men, defend the rights of LGTBI persons and eradicate gender violence

- Early detection and fight against gender-based violence
- Protection and support for women victims of trafficking or sexual exploitation

Introduction of transversal routes in large open spaces, Lighting and treatment of perimeter plots.
Provide activity on bridges and footbridges over tracks
Creation of well-lit environments, with lively atmospheres and constant activity.
INDICATORS TO MONITOR THE IMPLEMENTATION

Number of spots in municipal self-protection workshops and schools
Number of victims of gender violence who are monitored and protected by the Municipal Police

1,140 (2020)
2,033 (2021)

OUTPUT INDICATOR

**Number of fatal victims of gender-based violence in the city of Madrid**

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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<tbody>
<tr>
<td>Municipality</td>
<td>Number</td>
<td>2021</td>
<td>Annual</td>
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</table>

**Crimes of gender-based violence**

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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<tbody>
<tr>
<td>Municipality</td>
<td>Number</td>
<td>2020</td>
<td>Annual</td>
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</tbody>
</table>
IMPACT

Gender-based violence is a heinous form of discrimination and a violation of fundamental human rights. Physical and sexual violence against women can severely impact their health and overall well-being. The introduction of transversal routes in public spaces and the creation of well-lit environments, coupled with an increase in self-protection workshops and schools in municipal spaces, are some of the initiatives that have led to the improvement of women’s safety in cities.

While the number of fatal victims of gender violence in Madrid has remained relatively low, with a decrease in the last registered value, it cannot be guaranteed that the number of non-fatal victims is directly linked to the number of reported incidents. The expected behaviour of both output indicators localised for this target must always be downward.

Even though gender indicators imply an inherent cultural transformation, continuing with the current policies and introducing new safety policies for women and girls could help to ensure a continuous decrease in the number of fatal victims of gender violence in the city.
5.4 Value unpaid care and promote shared domestic responsibilities

**DESCRIPTION**

Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

**MADRID TARGET**

Localisation target 5.3 - By 2030, level the time spent on domestic work during workdays between men and women.

**INPUT**

**Government Operational Programme 2019 - 2023**

**Madrid, a city for all families**

Guarantee equal opportunities between women and men, defend the rights of LGTBI persons and eradicate gender violence.

- Ensuring equal opportunity
- Integrated projects for equality
- Gender mainstreaming

**OUTPUT INDICATOR**

<table>
<thead>
<tr>
<th>Ratio of domestic and care work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>Municipality</td>
</tr>
</tbody>
</table>

![Graph showing the ratio of domestic and care work over years with a goal of 1 by 2030.](image)
Women tend to spend a disproportionately greater amount of time on unpaid care work compared to men, largely due to the traditional perception of such work as a female responsibility. This disparity in domestic and care work has contributed to the persistent gaps in employment and payment between genders. Madrid has made notable progress in addressing this issue, potentially attributable to the rising prevalence of remote work in recent years. However, further efforts are needed to implement policies that bring greater visibility to unpaid care work, with the ultimate aim of reducing these disparities.
5.5 Ensure full participation in leadership and decision-making

**DESCRIPTION**

Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

**MADRID TARGET**

Localisation target 5.4 - By 2030, increase the proportion of women elected for City Council and managerial positions.

**INPUT**

*Government Operational Programme 2019 - 2023*

**Madrid, a city of opportunities**

Promote entrepreneurship, competitiveness, innovation and technological knowledge.

- Promotion of entrepreneurial culture

**Madrid, a city for all families**

Guarantee equal opportunities between women and men, defend the rights of LGTBI persons and eradicate gender violence

- Ensuring equal opportunity
- Integrated projects for equality

**Madrid, an open, cultured and sporting city**

Increase sports infrastructures and services and promote sports as a healthy and inclusive tool.

- Health, social inclusion and equity through sport
## OUTPUT INDICATOR

### Proportion of seats held by women in sub-national/local governments

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2019</td>
<td>4 years</td>
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</table>

![Graph showing the proportion of seats held by women in sub-national/local governments](image)

### Ratio of men to women in management positions

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<thead>
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<th>Disaggregation level</th>
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<th>Years</th>
<th>Update Frequency</th>
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<tbody>
<tr>
<td>Municipality</td>
<td>Ratio</td>
<td>2021</td>
<td>Annual</td>
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</tbody>
</table>

![Graph showing the ratio of men to women in management positions](image)

### IMPACT

Political and corporate cultures are among the reasons why women are not well represented in the decision-making process. In order to strengthen democracy, it is crucial to ensure equal participation of both men and women in leadership and decision-making roles. Madrid has demonstrated a positive performance in terms of the proportion of seats held by women in sub-national/local governments, having almost reached its 2030 target as early as 2019. However, it is important to remain vigilant and continue efforts to ensure that this indicator not only reaches the target but also remains stable over time.
CLEAN WATER AND SANITATION
6.3 Improve water quality, wastewater treatment and safe reuse

DESCRIPTION
By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

MADRID TARGET
Localisation target 6.1 - By 2030, the 100 per cent of the wastewater generated in the city of Madrid will be treated by nutrient removal processes and tertiary advanced filtration and disinfection treatments.

INPUT
Localisation Strategy for the SDGs of the 2030 Agenda
Upgrade wastewater treatment facilities in the city of Madrid

Government Operational Programme 2019 - 2023
Madrid, a sustainable city
Making Madrid a green and clean city
• Water Management in Madrid

All runoff water collected within the Madrid Nuevo Norte area will be properly managed and treated before discharge outside the area using sustainable urban drainage techniques. Systems for the collection, storage and treatment of rainwater in buildings, open spaces and roads. When landscaped areas of 5,000 m² or more are available, it is contemplated to water reuse for irrigation of these green areas. Priority use of rainwater and reclaimed water for irrigation of parks (S ≥ 1 ha), gardens (s < 1 ha) and green areas. The irrigation networks to be developed in the urbanisation projects that will develop each area must promote efficiency in the use of water, and in general, in addition to having programmers, rain or humidity sensors will be installed. The Urban Drainage Framework foresees the use of grey water
and rainwater by private individuals for the irrigation of green areas, as well as grey water for refilling cisterns. Implementing a Smart Water system that allows the correct management of run-off water and grey water generated within the area. Installation of a series of control and monitoring systems to guarantee and control the volumes of reusable water generated, stored and reused according to the different uses foreseen.

Increase in recycling rates (increase in recycling rates in residential, services and municipal sectors). Street cleaning. Around €1,700 million to strengthen the workforce the mechanical means and the frequency of services.

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
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</table>

Percentage of wastewater treated in nutrient removal and advanced tertiary filtration and disinfection facilities in Madrid
Access to safe drinking water is a crucial socio-economic and health indicator. The absence of properly managed sanitation and the discharge of non-domestic sewage into water sources are major contributors to the contamination of drinking water, which in turn leads to waterborne diseases. In the city of Madrid, significant upgrades have been made to wastewater treatment facilities. Actions such as the implementation of control and monitoring systems, as well as the regulation of volumes of reusable water generated, stored and reused for various purposes, have contributed to the city’s progress in achieving its targets in this area.
6.4
Increase water-use efficiency and ensure freshwater supplies

DESCRIPTION
By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of persons suffering from water scarcity.

MADRID TARGET
Localisation target 6.2 - Extend the regenerated water network and increase the number of uses and the volume used in relation to drinking water.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda

Upgraded the water network and facilities to increase the use of alternative water resources

Systems for the collection, storage and treatment of rainwater in buildings, open spaces and roads.
As it has landscaped areas of 5,000 m² or more, it contemplates the reuse of water for irrigation of these green areas.
The use of drainage water from underground infrastructures in Madrid and wells are considered alternative water resources. This use must have the corresponding authorisation from the competent environmental authority.
Priority use of rainwater and reclaimed water for irrigation of parks (S ≥ 1 ha), gardens (s < 1 ha) and green areas.
The irrigation networks to be developed in the urbanisation projects that will develop each area will have to promote efficiency in the use of water, with general criteria, in addition to having programmers, rain or humidity sensors will be installed.
In Madrid Nuevo Norte, the limitation of the maximum irrigation allocation is contemplated, for which green spaces and street trees have been designed with species with low water requirements and highly adaptable to the climatic conditions of the city of Madrid.
The Urban Drainage Framework foresees the use of grey water and rainwater by private individuals for the irrigation of green areas, as well as grey water for the recharge of cisterns. The implementation of the Master Framework reduces the level of water stress in the Madrid Nuevo Norte area by 49 per cent and in the Municipality of Madrid through proper management of greywater and run-off water generated within the area itself. Reduction of the water footprint by 48%. Implement a Smart Water system that allows the correct management of run-off water and grey water generated within the area.

INDICATORS TO MONITOR THE IMPLEMENTATION

Number of uses of alternative water resources

6 (2021)

OUTPUT INDICATOR

Domestic water consumption per capita

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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<tbody>
<tr>
<td>Municipality</td>
<td>L/inh./day</td>
<td>2021</td>
<td>Annual</td>
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</tbody>
</table>

![Graph showing domestic water consumption per capita over years](image)
The Municipality of Madrid has made substantial efforts to upgrade its water networks and facilities, resulting in increased efficiency in water usage, as well as better storage and treatment of rainwater for reuse in green spaces. An effective strategy to enhance freshwater resources, particularly in times of escalating demand and water scarcity, is to reduce the water footprint by revaluing wastewater and recycling it. Both indicators for this target demonstrate decreasing values, aligning with the 2030 target. However, significant measures must be taken to ensure that this goal is achieved within the expected timeframe.
6.6
Protect and restore water-related ecosystems

DESCRIPTION
By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.

MADRID TARGET
Localisation target 6.3 - By 2030 to increase the biodiversity of riverbank ecosystems in watercourses running through urban land in the municipality of Madrid.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Recovery of the city’s riverbeds

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Kilometres of restored watercourses on urban land</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Madrid</td>
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</tbody>
</table>

![Graph showing progress towards the goal of Kilometres of restored watercourses on urban land.](image-url)
The protection of water resources, ecosystems and drinking water is a critical component of water management. Water ecosystems are closely associated with health indicators, as they play a significant role in preventing the transmission of communicable diseases. The Municipality of Madrid has implemented preventive measures, including the restoration of the city’s riverbed, which is reflected in the increase in the number of restored watercourses on urban land, as illustrated in the previous graph. The actions taken in pursuit of SDG6 may also have a positive impact on other targets within SDG13 and SDG14.
7  AFFORDABLE AND CLEAN ENERGY
7.2 Increase global percentage of renewable energy

DESCRIPTION
By 2030, increase substantially the share of renewable energy in the global energy mix.

MADRID TARGET
Localisation target 7.1 - By 2030, meet 30 per cent of the electricity demand of municipal buildings with self-consumption renewable systems.
Localisation target 7.2 - By 2030, 70 per cent of the energy consumed by newly constructed municipal residential buildings will be renewable.
Localisation target 7.3 - By 2030, significantly increase the share of energy production based on renewable sources within the overall energy self-sufficiency target of Madrid City Council.
Localisation target 7.4 - Favour access to real estate tax (IBI) benefits for properties that use renewable energies.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Increase the consumption of electric energy from renewable sources

Government Operational Programme 2019 - 2023
Madrid, a sustainable city
Ensuring sustainable mobility
• Sustainable vehicles
• Sustainable EMT
Making Madrid a green and clean city
• Strategic Cleaning Plan
• Waste Strategy of the City of Madrid
• Improvements to the Valdemingómez Technology Park (PTV)
Promoting clean energy and air quality
• Healthy and sustainable environment
• Sustainable municipal buildings and facilities
• Reduction of taxes and fees to promote environmental improvements
Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.
• Urban renewal
Vision of a zero-emission energy model that is underpinned by improved system efficiency, energy electrification, equipment and grid intelligence and on-site renewable generation. Promote the local production of renewable energies and their integration into the operation of electrified systems. Reserve space for renewable energy generation in all buildings, up to a maximum of two times that defined by the technical building code. Introduction of around 17,100 m² of panels, which in terms of electricity generation would cover the annual demand for lighting in the public space of the entire project.

Development of the fast-charge stations network: €12 million for the installation of electric recharging infrastructures with which 1,900 points can be financed: 300 for 2021 and 800 per year for 2022 and 2023.

INDICATORS TO MONITOR THE IMPLEMENTATION

Number of properties that qualify for IBI rebates for having renewable energy-based energy systems installed. 311 (2021)

<table>
<thead>
<tr>
<th>OUTPUT INDICATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable energy share of energy consumed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing renewable energy share of energy consumed over years]
Energy is essential for the effective functioning of all economic sectors, including businesses, industries and agriculture. The city of Madrid has actively promoted the production of renewable energy locally, integrating it into electrified systems. Positive outcomes of this initiative are reflected in both output indicators illustrated in the graph for target 7.2. Furthermore, Madrid’s 360 Programme has played a key role in the development of a fast-charge station network and the installation of approximately 17,100 square meters of solar panels. In terms of electricity generation, these measures would be sufficient to meet the annual demand for lighting in public spaces throughout the city of Madrid.
7.3
Double the improvement in energy efficiency

DESCRIPTION
By 2030, double the global rate of improvement in energy efficiency.

MADRID TARGET
Localisation target 7.5 - By 2030, have an energy efficiency system in place with more than 80 per cent of municipal energy consumption monitored and accessible on the open data portal.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Improvement in the monitoring and data sharing municipal system
Government Operational Programme 2019 - 2023

Madrid, a sustainable city
Promoting clean energy and air quality
- Sustainable municipal buildings and facilities
- Reduction of taxes and fees to promote environmental improvements
Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.
- Urban redevelopment
- Urban renewal
- Urban planning and regulations
Recover and preserve public spaces and provide them with new facilities.
- Public spaces renovated with accessibility and sustainability criteria

Madrid, an open, cultured and sporting city
To promote culture in its universal and local perspective.
- Madrid Cultural Capital
Implementation of district heating and cooling networks.
Obligation for outdoor lighting to obtain the maximum energy rating
Mass deployment of electric mobility through the planning and design of an electricity grid with the technical characteristics to accommodate a high-capacity charging infrastructure.

Renewal of electrical appliances and lighting of residential and city services
Installation of smart heating and cooling, smart lighting and LED street lighting
Restoration of roofs, façades and windows

INDICATORS TO MONITOR THE IMPLEMENTATION
Municipal consumption data on municipal website and open data portal
9.1% (2020)
Percentage of municipal buildings and facilities with a surface area greater than 250 m2 that have an energy rating of A or B
4.6% (2021)
Percentage of zero-emission vehicles on the road fleet
0.3% (2017)
Number of publicly accessible electric vehicle recharging points
67 (2021)
Percentage of green or clean vehicles in public/municipal fleet
88% (2021)

OUTPUT INDICATOR

### Energy intensity rate

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>tep/M€*</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

* tep/M€ = Ton oil equivalent per million Euro
IMPACT

The goal to double the global rate of improvement in energy efficiency systems can be partially accomplished through the implementation of district heating and cooling networks, along with the mandatory attainment of maximum energy ratings for outdoor lighting, thereby enhancing the energy consumption of the municipality. Nevertheless, additional efforts are necessary to achieve the targets for energy intensity rates and the anticipated municipal self-consumption by 2030.
8 DECENT WORK AND ECONOMIC GROWTH
8.1 Sustainable economic growth

DESCRIPTION
Sustain per capita economic growth in accordance with national circumstances and, in particular, at least seven per cent gross domestic product growth per annum in the least developed countries.

MADRID TARGET
No localisation target included in the Madrid’s “Localisation Strategy for the SDGs of the 2030 Agenda”.

INPUT

**Government Operational Programme 2019 - 2023**
Madrid, a city of opportunities
Incentivize economic activity by reducing taxes, fees, penalties and bureaucratic obstacles.
- Reduction of taxes, fees and penalties to promote economic activity

Around €15,200 million and impact on national Gross Domestic Product.
Around €12,000 million impact on the Gross Domestic Product of the Community of Madrid.

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Gross Domestic Product annual growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Triple analysis</td>
</tr>
</tbody>
</table>

![Chart showing Gross Domestic Product growth rates for Greater Madrid Area, Municipality, and Functional Urban Area from 2019 to 2021. The chart illustrates the goal, projection, and actual growth rates.]
In Madrid, both GDP and GDP growth have remained stable and increased over the past few years. The high peak observed in the output indicator graph can be attributed to the recovery from the most severe effects of the Covid-19 pandemic. The forthcoming contribution of Madrid Nuevo Norte to the GDP and employment generation may result in the city and Functional Urban Area values surpassing the 5% target value, as shown in the output indicator graph. However, it is important to note that the analysis of GDP and GDP growth values should not overlook other indicators, such as the distribution of or GDP per sector. Considering these indicators would provide a more comprehensive understanding of SDG achievement.

**Impact**

Madrid Nuevo Norte will generate €15.2 billion of wealth, contributing €12 billion to the regional GDP of the Community of Madrid, exporting part of this wealth (€3.2 billion) to other autonomous communities. The direct impact on SDG 8 is enormous, being positive and helping the economy to recover and moving towards the goals of the 2030 Agenda.

**Madrid Nuevo Norte Indicator**

Annual growth rate of real GDP per capita

![Graph showing annual growth rate of real GDP per capita](image)

- **Value 2030 Expected without MNN**: 3.7%
- **Value 2030 Expected with MNN**: 6.5%
8.2  Diversify, innovate and upgrade for economic productivity

DESCRIPTION

Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors.

MADRID TARGET

No localisation target included in the Madrid’s "Localisation Strategy for the SDGs of the 2030 Agenda".

INPUT

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**
Boosting the economy and supporting small businesses and the hotel and catering industry.
- Revitalization of commercial areas and sectors
- Strategic Plan for Madrid Markets
- Madrid Fashion Capital

Promote entrepreneurship, competitiveness, innovation and technological knowledge.
- International economic promotion of the City of Madrid
- Smart City Strategy

**Madrid, responsible, transparent and easy**
Addressing the impact of Covid-19
- Measures for the reactivation of the City

348,064 jobs generated in Spain linked to the project
296,122 jobs generated in the Region of Madrid
Impact of €15,200 million on national Gross Domestic Product
Impact of €12,000 million on the Gross Domestic Product of the Region of Madrid
### IMPACT

The productivity ratio represents the relationship between GDP growth and employment growth, which ideally should be directly proportional. The spike in productivity shown in the graph is linked to the decline in both employment and GDP growth experienced at the height of the Covid-19 pandemic. However, for the remaining years, the values have remained relatively stable for the triple analysis. Madrid has implemented strategies to increase employment generation and capital attraction, such as revitalising trade, organising Madrid Fashion Capital, and promoting Madrid as a Smart City. The Madrid Nuevo Norte project will also have a positive contribution. Therefore, sustained growth in both employment and GDP can be expected in the coming years, leading to an expected value of zero for the productivity ratio.

To gain a more comprehensive view of how each sector contributes to GDP and job creation, and hence the productivity ratio, these indicators could be combined with some of the SDG9 indicators.

### Table: Productivity ratio

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>Ratio</td>
<td>2020</td>
<td>Annual</td>
</tr>
</tbody>
</table>

---

![Graph showing productivity ratio over years](image-url)
8.2 Diversify, innovate and upgrade for economic productivity

Impact
Madrid Nuevo Norte is expected to generate €15 billion of wealth, contributing €12 billion to the regional GDP of the Community of Madrid, with €3.2 billion being exported to other autonomous communities. Furthermore, the project is expected to create 296,122 jobs in the Community of Madrid alone, with 149,622 in the construction phase and 146,500 in the operational phase. The economic impact of Madrid Nuevo Norte is not limited to regional and national wealth creation, but also extends to employment across various educational levels and sectors. The project is expected to have a positive impact on productivity, both during the construction process and in the operational phase.

Madrid Nuevo Norte Indicator
GDP creation vs. employment growth (Productivity Ratio Components)
8.3
Promote policies to support job creation and growing enterprises

DESCRIPTION
Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

MADRID TARGET
Localisation target 8.1 - Increase the number of public contracts granted to SMEs and the self-employed as a percentage of all municipal contracts.
Localisation target 8.2 - Extend the effective application of the tax benefits established in the Tax on Economic Activities (IAE) for starting up a business and for job creation.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda

Promoting job creation and economic activity through tax credits, and contract granting to SMEs and the self-employed

Government Operational Programme 2019 - 2023

Madrid, a city of opportunities
Boosting the economy and supporting small businesses and the hotel and catering industry
- Revitalization of commercial areas and sectors
- E-commerce training, outreach and information
Promote entrepreneurship, competitiveness, innovation and technological knowledge.
- Support for the self-employed and SMEs
- Promotion of entrepreneurial culture
Generate employment opportunities
- Employment and Training Plans
- Restructuring of the Employment Agency
Creation of a large international business centre that will serve to revitalise office activity in Madrid, serving as a hub of international attraction for new companies. Promotion of local commerce with the implementation of ground floor retail units in 90% of the blocks in the project. Commitment to local employment through the use of locally sourced and manufactured materials. Develop initiatives to encourage the use of regionally sourced materials, extracted and produced within a radius of less than 160 km or, where this is not possible, at national level."

<table>
<thead>
<tr>
<th>OUTPUT INDICATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small and Medium Enterprises per 1,000 inhabitants</td>
</tr>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>Triple analysis</td>
</tr>
</tbody>
</table>

IMPACT

Creating decent jobs, promoting entrepreneurship, creativity and innovation, and supporting the formalisation and growth of micro, small, and medium-sized enterprises are essential for achieving inclusive and sustainable economic growth, as well as for the well-being and personal fulfilment of individuals. Encouraging the use of locally and regionally manufactured materials can drive job creation and economic activity. Madrid’s Localisation Strategy, which proposes tax credits and contracts for small and medium-sized enterprises, could improve the value of formal and decent employment in Madrid, while also consolidating small and medium enterprises, which are critical for socio-economic development. By focusing on these areas, the achievement of life goals for meaningful engagement in society can be realised, promoting a sense of self-worth and social inclusion.
Improve resource efficiency in consumption and production

DESCRIPTION
Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead.

MADRID TARGET
Localisation target 8.3 - Generalise the implementation of fair trade and sustainable consumption and production clauses in the acquisition of goods and products and in the provision of services.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Increase fair trade and sustainable production sources in municipal contracts.

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>2030 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madrid</td>
<td>%</td>
<td>0,09 (2021)</td>
<td>≥25%</td>
</tr>
</tbody>
</table>

IMPACT
Resource productivity improves when Gross Domestic Product (GDP) grows compared to material consumption. The Madrid City Council has developed an initiative to promote fair trade and sustainable production sources in municipal contracts, encouraging the use of regionally sourced materials. However, greater attention needs to be given to the inclusion of clauses in these contracts that prioritize resource productivity and sustainable production as an urgent and mandatory matter.
By 2030, achieve full and productive employment and decent work for all women and men, including for young persons and persons with disabilities, and equal pay for work of equal value.

**MADRID TARGETS**

Localisation target 8.4 - By 2030, the city of Madrid will reach an overall employment rate of 75 per cent.

Localisation target 8.5 - By 2030, the city of Madrid will achieve an overall female employment rate of 73 per cent.

Localisation target 8.6 - By 2030, the city of Madrid will reach full employment, with a structural unemployment rate of 5 per cent.

Localisation target 8.7 - By 2030, the city of Madrid will achieve a female unemployment rate of 5.5 per cent.

Localisation target 8.8 - By 2030, the city of Madrid will reach an employment rate of 69 per cent for seniors (55-64 years).

Localisation target 8.9 - By 2030, the city of Madrid will achieve a youth unemployment rate of 15 per cent.

Localisation target 8.10 - Reduce the wage gap by 2030.

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**

Promote entrepreneurship, competitiveness, innovation and technological knowledge.
- Promotion of entrepreneurial culture
- Generate employment opportunities
- Employment and Training Plans
- Restructuring of the Employment Agency

**Madrid, responsible, transparent and easy**

Progress in a transparent, agile and ethical administrative organization, focused on citizenship.
- Public procurement as a tool for innovation and economic and social modernization
- Promote the professional development of municipal personnel
- Madrid 2020-2023: Strategy for Transforming Human Resources Management
348,000 new jobs will be created, 200,000 during the implementation phase and 148,000 during the operation phase.

### OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Unemployment rate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
<td>Triple analysis</td>
</tr>
<tr>
<td>Unit of measure</td>
<td>%</td>
</tr>
<tr>
<td>Years</td>
<td>2021</td>
</tr>
<tr>
<td>Update Frequency</td>
<td>Annual</td>
</tr>
</tbody>
</table>

**Graph:**
- Greater Madrid Area (line with square markers)
- Municipality (line with circle markers)
- Functional Urban Area (line with triangle markers)

**Goal:** 5%

**Projection:**
- Greater Madrid Area: 11.43%
- Municipality: 16.52%
- Functional Urban Area: 10.57%

**Years:** 2015, 2021, 2030

### Employment rate

<table>
<thead>
<tr>
<th>Employment rate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
<td>Municipality</td>
</tr>
<tr>
<td>Unit of measure</td>
<td>%</td>
</tr>
<tr>
<td>Years</td>
<td>2021</td>
</tr>
<tr>
<td>Update Frequency</td>
<td>Annual</td>
</tr>
</tbody>
</table>

**Graph:**
- Municipality (line with circle markers)
- Projection (dashed line with circle markers)
- Goal (dotted line with circle markers)

**Goal:** 75%

**Projection:**
- Municipality: 55.11%
- Greater Madrid Area: 51.44%
- Functional Urban Area: 60.56%

**Years:** 2015, 2021, 2030
### Female employment rate

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing female employment rate with data points for 2015, 2021, and 2030.](image)

- **Municipality**: Line graph showing the female employment rate for different years. The data points are 48.60% in 2015, 51.06% in 2021, and projected to be 73% in 2030.
- **Projection**: Dashed line indicating the projected female employment rate.
- **Goal**: Dotted line showing the target female employment rate.

### Female unemployment rate

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing female unemployment rate with data points for 2015, 2021, and 2030.](image)

- **Municipality**: Line graph showing the female unemployment rate for different years. The data points are 15.54% in 2015, 12.59% in 2021, and projected to be 6% in 2030.
- **Projection**: Dashed line indicating the projected female unemployment rate.
- **Goal**: Dotted line showing the target female unemployment rate.

### Senior employment rate

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing senior employment rate with data points for 2015, 2021, and 2030.](image)

- **Municipality**: Line graph showing the senior employment rate for different years. The data points are 36.97% in 2015, 43.68% in 2021, and projected to be 69% in 2030.
- **Projection**: Dashed line indicating the projected senior employment rate.
- **Goal**: Dotted line showing the target senior employment rate.
IMPACT

Attaining full employment and decent work, which includes equal pay for equal work for young people and those with disabilities, is essential for sustainable development. Despite more women than men completing tertiary education, women are still less likely to gain employment, particularly in formal employment that provides employee benefits and social care. Consequently, the risk of vulnerability is greater for women than for men, as is demonstrated by the lower employment rate for females in the city of Madrid. Globally, and specifically in Madrid, job creation under fair and legal conditions is necessary to achieve the unemployment goal of 5% by 2030. The Covid-19 pandemic may have impeded job creation, and the figures for 2021 or 2022 may differ significantly from those of 2020. Nevertheless, the post-pandemic reopening and the revival of the job market may help to accelerate the recovery towards 2030, even though attaining the actual goal may be challenging.
8.5 Full employment and decent work with equal pay

Madrid Nuevo Norte Impact
Madrid Nuevo Norte is expected to create 296,122 jobs in the Community of Madrid alone, with 149,622 jobs in the construction phase and 146,500 jobs during the operational phase. This will have a significant direct impact on SDG8, by reducing the unemployment rate and contributing to Madrid’s objective of lowering unemployment to 5% by 2030.

Madrid Nuevo Norte Indicator
Unemployment rate

Unemployment rate

ANNUAL TRENDS OVER THE LAST 10 YEARS
-0.5%

MNN contributes 1.7% of the necessary drop in unemployment to meet the 5% target by 2030

MADRID’S 2030 GOAL: 5%
8.6 Promote youth employment, education and training

DESCRIPTION
By 2020, substantially reduce the proportion of youth not in employment, education or training.

MADRID TARGET
Localisation target 8.9 - By 2030 the city of Madrid will achieve a youth unemployment rate of 15 per cent.

INPUT

**Government Operational Programme 2019 - 2023**

Madrid, a city of opportunities
Generate employment opportunities
- Employment and Training Plans
- Restructuring of the Employment Agency

OUTPUT INDICATOR

**Youth Not in Education, Employment or Training (NEET)**

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing youth unemployment rate from 2015 to 2030](image.png)

- Municipality
- Projection
- Goal

2.2 Economy Inclusive
Individuals aged 15 to 24 have been hit the hardest by the economic crisis and continue to be underrepresented in the job market. The distribution of gender pay gaps and unemployment among young people is disproportionately high. Unfortunately, this group has not received sufficient attention, resulting in a significant number of young people being disengaged from employment, education, or training. This lack of engagement can lead to a lack of skill acquisition, a decline in competence, and an increased risk of labour market and social exclusion.

Furthermore, social exclusion can result in participation in street and criminal activities, decreased city safety, and a rejection of available job opportunities, creating a vicious cycle. Therefore, it is crucial to address the issue of youth unemployment through the promotion of educational activities, employment, and training opportunities in public policies aimed at social development. In Madrid, urgent action is necessary to reduce the number of young people who are not in employment, education or training (NEET), despite the figures being relatively low and showing a downward trend. The objective is to achieve a 0% NEET rate by 2030.
By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.

### Localisation target 8.11 - By 2030, make Madrid a more sustainable and accessible tourist destination.

### Localisation target 8.12 - Transition to a digital model for the promotion of Madrid as a tourist destination.

### Localisation target 8.13 - Promote Madrid as a filming location to stimulate investment and local development.

---

**Localisation Strategy for the SDGs of the 2030 Agenda**

Promotion of Tourism Area projects to improve sustainability and accessibility.

Increase online promotional activities

Facilitate the development of audiovisual projects in the city of Madrid.

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**

Promote entrepreneurship, competitiveness, innovation and technological knowledge.

- International economic promotion of the City of Madrid
- To guarantee the rights and duties of consumers and economic agents.
- Consumer protection and defence

Strengthen the international positioning of the City and enhance the attractiveness of Madrid as a major tourist destination.

- Tourism Strategic Plan
- City Tourism Management
INDICATORS TO MONITOR THE IMPLEMENTATION

Percentage of projects linked to the improvement of sustainability and accessibility with respect to total projects of the Tourism Area.

Percentage of promotional actions aimed at online publicity vs. total.

Number of audiovisual projects assisted in production work.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of projects linked to sustainability and accessibility</td>
<td>22% (2021)</td>
</tr>
<tr>
<td>Percentage of promotional actions aimed at online publicity</td>
<td>65% (2021)</td>
</tr>
<tr>
<td>Number of audiovisual projects assisted in production work</td>
<td>397 (2021)</td>
</tr>
</tbody>
</table>

OUTPUT INDICATOR

### Hospitality Industry Employment as a Proportion of Total Employment

<table>
<thead>
<tr>
<th>Disaggregation Level</th>
<th>Unit of Measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing hospitality industry employment growth over years](image)

- Municipality
- Goal

### Tourism GDP Growth

<table>
<thead>
<tr>
<th>Disaggregation Level</th>
<th>Unit of Measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madrid Functional Urban Area</td>
<td>%</td>
<td>2019</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing tourism GDP growth over years](image)

- Functional Urban Area
- Goal
IMPACT

The benefits of tourism are manifold, including the generation of income for local businesses, revenue for the local council, and job creation. In order to shift towards more sustainable tourism, the city of Madrid has facilitated the development of audiovisual projects and improved the sustainability and accessibility of online promotional activities. While the output indicator for this target has been positive, greater efforts are needed to redirect tourism towards more sustainable practices. Specifically, the percentage of projects aimed at improving sustainability and accessibility within the tourism sector needs to increase in order to achieve the desired effect, as indicated by the effort indicator.
9.1 Develop sustainable, resilient and inclusive infrastructures

DESCRIPTION
Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

MADRID TARGET
No localisation target included in the Madrid’s “Localisation Strategy for the SDGs of the 2030 Agenda”.

INPUT

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**
Boosting the economy and supporting small businesses and the hotel and catering industry
- Strategic Plan for Madrid Markets
  - Promote entrepreneurship, competitiveness, innovation and technological knowledge.
- Actions on business infrastructures

Remodelling of the Chamartín Public Transport hub, addition of new metro and suburban stops
BuP line as well as new urban and interurban bus lines.
The construction of new green infrastructure, retrofitting, or reconfiguring existing infrastructure systems can significantly contribute to reducing environmental impacts and building resilience while increasing resource efficiency. In this context, Madrid’s localized inputs primarily focus on market and business infrastructure, with a particular emphasis on transportation. This essay argues that the Madrid Nuevo Norte project and other transport and mobility initiatives linked to SDG 11 are essential for improving the city’s transport performance and achieving the goals set out in SDG target 9.1. The Madrid Nuevo Norte project is a prime example of how the city is working towards improving its transport infrastructure. The project aims to revitalize Chamartin’s Public Transport hub by expanding the bus line and bus stop offerings, making it easier for people to access public transport. By doing so, Madrid is contributing to SDG target 9.1, which emphasizes the need to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. Additionally, transport and mobility initiatives linked to SDG 11, such as those aimed at reducing traffic congestion and air pollution, also contribute to improving the city’s transport performance, which is used as an output indicator for this target. The success of these initiatives depends on a variety of factors related to the metropolitan structure, including commuting patterns, roads, and public transport systems.
Increase access to financial services and markets

DESCRIPTION
Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services including affordable credit and their integration into value chains and markets.

MADRID TARGET
No localisation target included in the Madrid’s “Localisation Strategy for the SDGs of the 2030 Agenda”.

INPUT

Government Operational Programme 2019 - 2023
Madrid, a city of opportunities
Promote entrepreneurship, competitiveness, innovation and technological knowledge.
• Support for the self-employed and SMEs
• Public-private collaboration in City projects
• Promotion of entrepreneurial culture
• Collaborative networks: exchange of ideas, knowledge and services

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>Index</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Employment dependency ratio by sector

Greater Madrid Area
Municipality
Functional Urban Area
The primary objective of the Resilience Index is to identify a city's vulnerability to crises or changes that impact its economy and business sector. It measures the distribution of jobs in the city, predicting potential problems that may arise during crises affecting specific economic sectors. A diversified workforce across various sectors is expected to be more resilient to crises than one that specializes in specific sectors. However, being focused on one or more sectors may also have economic and efficiency benefits (Journal of Risk Research, Sisto R., 2021).

The Resilience Index for Madrid has a moderate value and could, therefore, be considered sufficiently resilient to a crisis or change impacting its economy. However, upon analysing the data that contributes to the index, it becomes evident that the value of Madrid is primarily due to the sector of “Employment (jobs) in public administration, defence, education, human health, and social work activities (NACE Rev. 2, O to Q)” that doubles the average of other cities analysed. This characteristic usually occurs in regional capitals, although not to such an extreme extent. This sector is less affected by changes; hence it can be inferred that Madrid is more resilient to possible changes due to a strong presence of a static workforce.
9.4 Upgrade all industries and infrastructures for sustainability

DESCRIPTION
By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

MADRID TARGET
Localisation target 9.1 - By 2030, increase the number of entrepreneurial spaces in the city of Madrid.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Promotion of innovation and entrepreneurship spaces from Madrid City Council.

Government Operational Programme 2019 - 2023

Madrid, a city of opportunities
Boosting the economy and supporting small businesses and the hotel and catering industry
- E-commerce training, outreach and information
Promote entrepreneurship, competitiveness, innovation and technological knowledge.
- Use of information technologies in the modernization of industrial sites
- Actions on business infrastructures
To guarantee the rights and duties of consumers and economic agents.
- Mercamadrid’s Strategic Plan for Investment and Development
Strengthen the international positioning of the City and enhance the attractiveness of Madrid as a major tourism destination.
- Expansion of fairgrounds

INDICATORS TO MONITOR THE IMPLEMENTATION
Number of municipal innovation and entrepreneurship spaces. 10 (2021)
### Total industry greenhouse gas emissions per industry GDP

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>kg/Thousand €</td>
<td>2020</td>
<td>Annual</td>
</tr>
</tbody>
</table>

#### IMPACT

Inclusive and sustainable industrial development is essential for generating income and enabling rapid and sustained increases in living standards for all individuals. In Madrid, the City Council has established spaces for innovation and entrepreneurship. However, to achieve the SDG target 9.4, these spaces must focus on modern and sustainable forms of industry, which will contribute to a decrease in the output indicator.
Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

MADRID TARGET

Localisation target 9.2 - By 2030, encourage public and private investment in research.

Localisation Strategy for the SDGs of the 2030 Agenda

Increase the absolute value of public investment

Government Operational Programme 2019 - 2023

Madrid, a city of opportunities
Promote entrepreneurship, competitiveness, innovation and technological knowledge.

• Smart City Strategy
Strengthen the international positioning of the City and enhance the attractiveness of Madrid as a major tourism destination.

• City Tourism Management

• Madrid, center of audiovisual creation and production

Madrid, responsible, transparent and easy
Deepening the digital transformation of the City Council

• Digital Strategy of the City Council

INDICATORS TO MONITOR THE IMPLEMENTATION

Budget allocated to the promotion of innovation and technology (% of the consolidated budget of the Madrid City Council) 0.28% (2021)

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Last value</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Index</td>
<td>2021</td>
<td>14,38</td>
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</table>
The Madrid City Council has significantly increased public investment, which has played a key role in achieving the research and technology target. This investment may also contribute to SDG 12.a by supporting developing countries in enhancing their scientific and technological capabilities to adopt more sustainable consumption and production patterns.
**10.2**

**Promote universal social, economic and political inclusion**

**DESCRIPTION**

By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average.

**MADRID TARGET**

Localisation target 10.1 - Increase the number of municipal contracts for Special Employment Centres and Insertion Companies.

Localisation target 10.2 - Effectively promote the incorporation of persons with intellectual disabilities in the public employees’ workforce of the Madrid City Council and guarantee adequate and personalised training for this group.

Localisation target 10.3 - Encourage and increase access for persons with disabilities, as well as the older persons, to the citizen service channels of "Linea Madrid" and the institutional portal of the Madrid City Council.

Localisation target 10.4 - Reduce the imbalance between the most vulnerable neighbourhoods in southern and eastern districts.

Localisation target 10.5 - By 2030, progressively increase the number of persons with disabilities in municipal housing.

Localisation target 10.6 - By 2030, increase the number of dwellings adapted for persons with disabilities to 4 per cent of all municipal dwellings.

Localisation target 10.7 - By 2030, increase social inclusion of persons suffering from addictions.

Localisation target 10.8 - By 2030 raise awareness of and increase access to municipal social services for persons in need, improving their satisfaction.

**INPUT**

*Localisation Strategy for the SDGs of the 2030 Agenda*

Increment in the number of public employees with disabilities and improvement of their professional training

Increase in the number of "Linea Madrid" citizen service offices with special services for the older persons and persons with disabilities.

Increase in the accessibility of Madrid Web Portal

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**

Strengthen the international positioning of the City and enhance the attractiveness of Madrid as a major tourist destination.

- City Tourism Management
Madrid, a city for all families
Increase the intervention capacity of municipal services to help the most vulnerable persons.
- Reformulation of the Social Services care model
- Expansion of the municipal network of Social Services Centres and Primary Social Care
Social and fiscal support for families and their most vulnerable members, such as the older persons, dependent persons and children.
- Improved quality of life for families
- Expansion and improvement of services for the older persons
- Families caring for dependent persons
- Prevention of loneliness in the older persons
- Expansion of the municipal network of Day Care and Senior Citizen Centres
- Local Plan for Children and Adolescents
- Expansion of the municipal network of Youth Centres
Fight against homelessness, with housing and employment as the main lines of intervention.
- Fight against homelessness
Guarantee equal opportunities between women and men, defend the rights of LGTBI persons and eradicate gender violence
- Expansion of the Network of Equality Spaces
- Defence of the rights of LGTBI persons.
- Gender mainstreaming
Madrid, a sustainable city
Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.
- Urban redevelopment
- Urban regeneration
- Urban renewal
- Elimination of physical and sensory barriers and full inclusion and autonomy of all persons.
Recover and conserve public spaces and provide them with new facilities.
- Public spaces renovated with accessibility and sustainability criteria
Madrid, responsible, transparent and easy
Addressing the impact of Covid-19
- Help and support to those at home, facilitate confinement.
- Economic and fiscal aid to mitigate the negative economic effects that may occur in certain sectors of the City’s economy.
- Measures for the reactivation of the City
Participatory process involving focus groups and interviews with persons with physical and sensory disabilities, older persons, young persons with cerebral palsy and children with physical disabilities/cerebral palsy, for the design of the urban logistics in Madrid Nuevo Norte

Accessible Pedestrian Itinerary: 100% of pavements, bike lanes and crossings will be accessible and barrier-free in accordance with the highest international standards.

Gender, Childhood, Adolescence and Family analysis study in the planning phase.

The Social Commitment Department has been working directly and constantly with neighbours, groups and associations for more than three years.

INDICATORS TO MONITOR THE IMPLEMENTATION

Number of tenants with disabilities 175 (2021)
Percentage of adapted housing 2.78% (2021)
Number of participants in the municipal programme of integration of persons with addictions through sport 212 (2021)
Number of job placements of persons assisted in the network of the Institute for Addictions 3,682 (2021)
Percentage of persons attended to in the District Social Services Centres 13.2% (2021)
Evaluation of the treatment and care received by the staff of the Social Services 8.5 (2021)

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
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</tbody>
</table>

![Graph showing trend for unemployed persons with disabilities]
To address all forms of inequality, not just those related to poverty, as addressed in SDG1, Madrid’s strategy focuses heavily on reducing discrimination based on gender, sexual orientation, age, and ability.

To improve the living conditions and access to opportunities for all citizens and reduce inequality, the Madrid Municipality has not only promoted social and fiscal support programs for vulnerable families but also a range of measures aimed at supporting people with disabilities. Despite the city’s efforts to integrate disabled people into the labour market, the output indicators show a slight increase in the percentage of unemployed people with disabilities. It is worth noting that this increase may be influenced by the general rise in unemployment due to the impact of Covid-19.

Additionally, the Madrid Nuevo Norte project is engaging in a participatory process that includes focus groups and interviews with older people, people with physical and sensory disabilities, and their families to ensure the accessibility of the urban project design.
10.4 Adopt fiscal and social policies that promote equality

DESCRIPTION
Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.

MADRID TARGET
Localisation target 10.9 - Progressively reduce income inequality in the city of Madrid.
Localisation target 10.10 - Favour access to property tax (IBI) benefits for taxpayers in situations that justify the application of social protection measures.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Expanding access to tax benefits for persons under social protection

Government Operational Programme 2019 - 2023

Madrid, a city of opportunities
Incentivize economic activity by reducing taxes, fees, penalties and bureaucratic obstacles.
• Reduction of taxes, fees and penalties to promote economic activity

Madrid, a city for all families
Social and fiscal support for families and their most vulnerable members, such as the older persons, dependent persons and children.
• Tax reduction in favour of families

INDICATORS TO MONITOR THE IMPLEMENTATION
Number of taxpayers in a social protection situation accessing some kind of tax benefits

22,698 (2021)
Measuring income distribution is one way to gauge inequality, with both the Gini coefficient and the S80/S20 ratio expected to decrease over time as a sign of decreasing inequality. Madrid has made progress in reducing income inequality while expanding access to tax benefits for taxpayers under social protection measures. These efforts contribute to the GUMF 1.4.2 Gini coefficient indicator, which is a measure of income inequality.
10.7
Responsible and well-managed migration policies

DESCRIPTION
Facilitate orderly, safe, regular and responsible migration and mobility of persons, including through implementation of planned and well-managed migration policies.

MADRID TARGET
No localisation target included in the Madrid’s “Localisation Strategy for the SDGs of the 2030 Agenda”.

INPUT

Government Operational Programme 2019 - 2023

Madrid, a city for all families
To achieve full integration of immigrants and their families.
• Social and intercultural coexistence

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Foreign-born employment rate

![Graph showing the foreign-born employment rate from 2015 to 2030 with a trend line.]

- Greater Madrid Area
- Municipality
- Functional Urban Area
IMPACT

Madrid is home to thousands of migrants from all over the world, and like other cities throughout Europe, it is making efforts to welcome migrants and refugees. These efforts include providing assistance with document sorting, finding employment, and building careers. Although not explicitly outlined in Madrid’s strategy, the Government Operational Programme 2019-2023 aims to achieve full integration of immigrants and their families through social and intercultural coexistence. These efforts are reflected in the increasing foreign employment rate since 2015, with a slight dip in the graph, which may be related to a general fall in employment. It is worth noting that these targets and indicators are also interlinked with those related to employment and non-discrimination policies in SDG8 and SDG16.
11.1 Safe and affordable housing

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

MADRID TARGET

Localisation target 11.1 - Promote the establishment of property taxes relief to encourage the sale of empty homes for renting.
Localisation target 11.2 - Increase public rental housing stock.
Localisation target 11.3 - By 2030, implement and consolidate new formulas to guarantee the right of access to housing for homeless persons in the city of Madrid.
Localisation target 11.4 - By 2030, progressively reduce household expenditure on housing and housing supplies.

INPUT

Government Operational Programme 2019 - 2023

Madrid, a city for all families
Increase the intervention capacity of municipal services to help the most vulnerable persons.
- Expansion of the municipal network of Social Services Centres and Primary Social Care
- Urgent action by Social Services Social and fiscal support for families and their most vulnerable members, such as the older persons, dependent persons and children.
- Expansion of the municipal network of Day Care and Senior Citizen Centres
- Expansion of the municipal network of Youth Centres
Facilitating education and housing as a vector for personal and social development.
- Access to housing
- Tax reduction to facilitate housing
Fight against homelessness, with housing and employment as the main lines of intervention.
- Fight against homelessness
Enhancing safety and improving emergency response
- Fight against ‘illegal squatting’
- Safety, coexistence and recovery of particularly degraded neighbourhoods
Madrid, a sustainable city
- Redefinition of the uses of municipal centres and spaces. Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.
- Housing Observatory

Madrid, responsible, transparent and easy
Addressing the impact of Covid-19
- Guarantee of food, housing and other basic needs, especially for the most deprived.

Construction of around 10,500 residential units
Twenty per cent of all the housing in Madrid Nuevo Norte (2,100), proportionally distributed among the three areas, will have public protection.

INDICATORS TO MONITOR THE IMPLEMENTATION

Number of properties with property tax relief 0 (2021)
Number of municipal public rental housing units 6,423 (2021)
Number of private housing units managed by the City Council 6,545 (2021)
Homeless men participating in municipal housing access programmes 285 (2021)
Homeless women participating in municipal housing access programmes 69 (2021)

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Housing access index</th>
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</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>City/Municipality</td>
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</tbody>
</table>
### Percentage of the household budget spent on housing, water, electricity, gas and other fuels

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
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</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing the percentage of the household budget spent on housing, water, electricity, gas and other fuels over time.](image)

### Population living in vulnerable sections

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing the population living in vulnerable sections over time.](image)

### IMPACT

Madrid encourages the sale of vacant housing for social rental through the establishment of real estate tax rebates. This approach aims to increase the number of public rental housing units managed by the City Council. The city also strives to implement and consolidate new measures to ensure the right to access housing for homeless individuals and gradually reduce household spending on housing and utilities. One of the key efforts towards this goal is the Madrid Nuevo Norte project, which plans to construct approximately 10,500 homes and will significantly impact affordable housing in Madrid.
Impact
Madrid Nuevo Norte's significant proportion of social housing compared to those regulated for free housing will positively impact housing affordability indicators, encouraging fairer and more sustainable procurement practices.

Madrid Nuevo Norte Indicator
Difference in land value of free housing compared to subsidised housing

Difference in land value of free housing compared to subsidised housing

**NORTH**
- BPH: -56.31%
- LPSH: -45.38%

**SOUTH**
- BPH: -70.80%
- LPSH: -63.50%

24.5% of housing in MNN will have some form of protection, which has a direct impact on access to housing due to the large difference in prices per m² of these dwellings.

BPH = Basic Public Housing
LPSH = Limited-Price Social Housing
**11.2 Affordable and sustainable transport systems**

**DESCRIPTION**

By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

**MADRID TARGET**

Localisation target 11.5 - Gradually expand the cycling infrastructure in the city of Madrid.
Localisation target 11.6 - Progressively increase the use of bicycles as a mode of transport through the BiciMAD public transport system.
Localisation target 11.7 - Increase the number of persons travelling by public transport.

**Localisation Strategy for the SDGs of the 2030 Agenda**

Increase in the number of BiciMAD stations and separative and non-separative bicycle lanes

**Government Operational Programme 2019 - 2023**

**Madrid, a sustainable city**
- Madrid 360º
- Ensuring sustainable mobility.
- Sustainable vehicles
- Cycling mobility
- Sustainable EMT
- Improved mobility infrastructure
- Sustainable parking network
- Management of Madrid Central
- Integral Road Safety Plan

**Madrid, an open, cultured and sporting city** to promote culture in its universal and local perspective.
- Madrid Cultural Capital

Increase sports infrastructures and services and promote sports as a healthy and inclusive tool.
- Promotion of sports
Remodelling of the Chamartín Public Transport hub, addition of new metro and suburban stops, priority bus line as well as new urban and interurban bus lines.
Separate bicycle lanes.

Including more clean vehicles in the municipal fleet
Electrification of Transport sector
Reduction of transport demand
Implementation of a low emission zone and parkings.
Modal shift fleet renovation
Expansion of the BiciMAD system to more districts
Installation of new public chargers for electric vehicles

INDICATORS TO MONITOR THE IMPLEMENTATION

Kilometres of dedicated cycle lanes 359.9 (2021)
Kilometres of total cycle lanes 715 (2021)
Number of districts reached by the BiciMAD System 15 (2021)

OUTPUT INDICATORS

<table>
<thead>
<tr>
<th>Number of passengers in Municipal Public Transport (EMT)</th>
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</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
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<tr>
<td>----------------------</td>
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<tr>
<td>Municipality</td>
</tr>
</tbody>
</table>

1.2 Society Inclusive

8.1 Adequate affordable housing stock
A well-functioning transport system is crucial for individuals to access their places of work, education, services, and social activities. To contribute to sustainable development, sustainable transport should be accessible to all customers, including those with special needs such as physical, visual, and/or hearing impairments, as well as those with temporary disabilities, older persons, children, and other persons in vulnerable situations. The availability, type, quality, and safety of transport systems are all critical factors to consider when designing sustainable and inclusive cities and communities.

Madrid has made significant progress in increasing the use of bicycles as a mode of transport through the BiciMAD public transport system, by expanding the cycling infrastructure across the city. The ongoing reform and modernisation of the metro and public transport infrastructure, suburban stops, as well as the addition of new urban and interurban bus lines, will contribute significantly towards achieving the target by 2030.

It is worth noting that the decrease in the indicators for this target aligns with the Covid-19 lockdown period, which may provide a plausible explanation for the indicators’ behaviour. However, before and after the peaks, the use of Madrid’s transport systems remains stable or is increasing.
11.4 Protect the world’s cultural and natural heritage

DESCRIPTION
Strengthen efforts to protect and safeguard the world’s cultural and natural heritage.

MADRID TARGET
Localisation target 11.8 - Obtain UNESCO World Heritage status for the candidature named “El Paseo del Prado y el Buen Retiro, paisaje de las Artes y las Ciencias” (The Prado Promenade and the Buen Retiro, a Landscape of Arts and Sciences).
Localisation target 11.9. - By 2030, progressively increase the use and enjoyment of municipal library services by the citizens of Madrid.
Localisation target. 11.10. - Facilitate access to more favourable tax conditions (exemptions or reductions) in property tax for buildings that are specially protected due to their consideration as historical heritage (especially by application of the Historical Heritage Law of the Community of Madrid).

Localisation Strategy for the SDGs of the 2030 Agenda
Increase the investment for the preservation, protection and conservation of cultural and natural heritage.
Submission of “El Paseo del Prado y el Buen Retiro, paisaje de las Artes y las Ciencias” as a candidate to be declared World Heritage by UNESCO.
Promotion of cultural dissemination and reading promotion activities by Madrid City Council.

Government Operational Programme 2019 - 2023

Madrid, a city of opportunities
Strengthen the international positioning of the City and enhance the attractiveness of Madrid as a major tourist destination.
  • Tourism Strategic Plan
  • City Tourism Management
  • Expansion of fairgrounds

Madrid, a city for all families
To achieve full integration of immigrants and their families.
  • Social and intercultural coexistence

Madrid, an open, cultured and sporting city to promote culture in its universal and local perspective.
  • Support for cultural creation
  • Activation of unique spaces
  • Madrid Cultural Capital
INDICATORS TO MONITOR THE IMPLEMENTATION

UNESCO World Heritage nomination

Yes

Number of activities of cultural dissemination and reading promotion

7,094 (2021)

Number of attendees to reading promotion activities

61,232 (2021)

OUTPUT INDICATOR

Cultural index

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
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<tbody>
<tr>
<td>Municipality</td>
<td>Index</td>
<td>2019</td>
<td>2 years</td>
</tr>
</tbody>
</table>

- Matadero, spearhead of Madrid’s artistic and cultural modernity
- Support for reading and the book sector
- Construction and expansion of libraries
- Improvement of Municipal Museums
- Proximity cultural programming
- Construction and improvement of spaces and centres
- Tax reduction to favour culture

Six allotments for cultural equipment, including a preserved building and two shrines.

4.2 Culture Inclusive
Protecting cultural and natural heritage is a crucial aspect of public policy, as it directly impacts the preservation of natural and historical surroundings and contributes to the sustainability of cities and human settlements. Madrid provides a great example of this commitment through its increased commitment in the preservation, protection, and conservation of cultural and natural heritage. A noteworthy demonstration of this commitment is the submission of “El Paseo del Prado y el Buen Retiro, paisaje de las Artes y las Ciencias” as a candidate for UNESCO World Heritage status.

In addition, the promotion of cultural dissemination and reading activities by Madrid City Council has significantly contributed to the protection of cultural and natural heritage. Preserving cultural heritage not only promotes cultural consumption but also benefits the local economy by increasing employment and income.
Reduce the environmental impact of cities

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

Localisation target 11.11 - The air quality in Madrid is in accordance with the World Health Organisation (WHO) guidelines for nitrogen dioxide and particulate matter concentrations.

**Input**

Localisation Strategy for the SDGs of the 2030 Agenda

Development of a decarbonisation roadmap

**Government Operational Plan 2019 - 2023**

Madrid, a sustainable city

- Madrid 360º
- Making Madrid a green and clean city
  - Strategic Cleaning Plan
  - Waste Strategy of the City of Madrid
  - Improvements to the Valdemingómez Technology Park (PTV)
  - Water Management in Madrid
  - Noise Control

Promoting clean energy and air quality

- Healthy and sustainable environment
- Sustainable municipal buildings and facilities

Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.

- Urban redevelopment
- Urban regeneration
- Urban renewal
- Start of large urban development projects

Integrated approach to the materials cycle and waste management, both in the construction phase and in city operations in the future

Implementation of low emission zone

Promotion of electric mobility and low emission public transport
INDICATORS TO MONITOR THE IMPLEMENTATION

Number of stations in the air quality monitoring network that exceed the guideline values (NO2, PM2.5, PM10) 1 (2021)

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Urban domestic waste per capita</th>
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<tbody>
<tr>
<td><strong>Disaggregation level</strong></td>
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</table>

![Graph showing trend of urban domestic waste per capita](image)

<table>
<thead>
<tr>
<th>Air quality Index</th>
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<tbody>
<tr>
<td><strong>Disaggregation level</strong></td>
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<tr>
<td>Municipality</td>
</tr>
</tbody>
</table>

![Graph showing trend of air quality index](image)

3.1 Environment Safe & Peaceful

3.2 Reducing greenhouse gas emissions
IMPACT

Large and densely populated cities, such as Madrid, offer ample opportunities for effective environmental action, demonstrating that urbanisation can serve as a transformative force towards more sustainable societies. In Madrid, air quality has significantly improved with the decrease in air pollutants. This trend is expected to continue with the implementation of the Madrid decarbonisation roadmap, which includes a low emission zone, promotion of electric mobility, and low-emission public transport. Madrid Nuevo Norte also contributes to this target by incorporating sustainable infrastructure that will reduce waste released into nature and air in the form of pollutants.

A key trend for the near future could be the renaturalisation of the city through the integration of green areas into the urban environment. These areas should be functional and effective in terms of energy efficiency, efficient use of resources and the improvement of air quality.
11.7 Provide access to safe and inclusive green and public spaces

DESCRIPTION

By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.

MADRID TARGET

Localisation target 11.12 - By 2030, progressively increase green areas in the city

Localisation Strategy for the SDGs of the 2030 Agenda

Increase and improve the amount and quality of the green urban areas in the city

Government Operational Programme 2019 - 2023

Madrid, a city for all families

Enhancing safety and improving emergency response
• Safety, coexistence and recovery of particularly degraded neighbourhoods

Madrid, a sustainable city

Making Madrid a green and clean city
• Maintenance and improvement of trees, parks and green areas.

Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.
• Start of large urban development projects

18 allotments of more than 1ha for basic green areas.

Dense, compact, mixed-use city model to generate public spaces, with dense city built-up densities 1.05-1.75

Design an environmental axis that will function as a structuring axis for development and also as a connector between Madrid and nature, also allowing the conservation of the existing cultural heritage in the area by integrating the two shrines located in the project within the new environmental corridor.

Creation of more than 445,000 m2 of new green areas that promote biodiversity and variety of ecosystems improving comfort in the public space through the use of vegetation.
**IMPACT**

Public open and green spaces are undeveloped pieces of land or land with no buildings that are accessible to the public free of charge. They provide recreational areas for residents, enhance the beauty and environmental quality of neighbourhoods, and encourage physical activity, which is linked to SDG3. Moreover, public spaces serve as safe spaces for women and girls, helping to reduce violence against them, which is linked to SDG5. They also provide workplaces for many informal workers, which is linked to SDG8. Green and efficient public spaces in cities help address both climate change mitigation and resilience, which tackles SDG13. Therefore, public spaces present an opportunity for cities such as Madrid to address SDGs comprehensively.

The above indicator highlights the need for Madrid to increase the number or extension of green areas per inhabitant, as the trend has remained stable and even shown a slight decline in recent years. In this regard, Madrid Nuevo Norte’s initiatives to increase accessibility to green spaces and improve the mix of uses become relevant for the district and the city in a broader context.
**Impact**

The green spaces planned in Madrid Nuevo Norte, including the new Central Park, will contribute to reducing the number of people without access to these services in the surrounding areas. This will support Madrid's strategic objective of increasing green spaces, and have a positive impact on the indicators related to target 11.7.

**Madrid Nuevo Norte Indicator**

Accessibility to green spaces

Proportion of the population with green spaces of more than 1 ha within 400 metres

**Present Day**

Area of influence without MNN

Level of access: 89.66%

Area of influence with MNN

Level of access: 97.69%

Area of influence with MNN

Level of access: 100%

**Output**

Population with no access (>400m)

Population with access (<400m)

**Caption:** Green areas
11.b
Implement policies for inclusion, resource efficiency and disaster risk reduction

DESCRIPTION
By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

MADRID TARGET
Localisation target 11.13 - By 2030, carry out in the city of Madrid all the actions included in the Flood Mitigation Study, as well as the implementation of new solutions based on sustainable urban drainage systems in order to minimise the harmful effects of flooding and improve the city’s sanitation system.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Implement mitigation actions included in the Flood Mitigation Study and new solutions based on sustainable urban drainage systems

Government Operational Programme 2019 - 2023
Madrid, responsible, transparent and easy
Contribute to the achievement of the 2030 Agenda and its Sustainable Development Goals
• Strategy for the implementation of the 2030 Agenda

Implementation of Urban Sustainable Stormwater Drainage Systems with different capacities in Madrid Nuevo Norte areas.
- Business Centre: 15,977 m3
- Malmea: 27,877 m3
- Las Tablas: 7,210 m3

INDICATORS TO MONITOR THE IMPLEMENTATION
Volume of Sustainable Urban Drainage System (SUDS) design installed

45,000 (2021)
The risk in urban areas is determined by two factors: the location and exposure to hazards, and increased vulnerability due to environmental degradation and the depletion of resources. Both of these factors are taken into consideration in Madrid’s Localisation Strategy, the Government Operational Plan, and Madrid Nuevo Norte initiatives, such as the Flood Mitigation Study, the Strategy for the Implementation of the 2030 Agenda, and the Implementation of Urban Sustainable Stormwater Drainage Systems. Additionally, risk mitigation and reduction align with the climate action objectives incorporated into SDG13 and SDG15.

### Zoom-in: Madrid Nuevo Norte

**11.b Implement policies for inclusion, resource efficiency, and disaster risk reduction**

**Madrid Nuevo Norte Impact**

The installation of Sustainable Urban Drainage Systems (SUDS) with an annual drainage capacity of 5,064 m³ will make a positive contribution to Madrid’s target 11.13 by reducing the risk of flood damage in the city, increasing its adaptive capacity to the effects of climate change and enhancing resilience to disasters, ultimately having a positive impact on target 11.b.

**Madrid Nuevo Norte Indicator**

Design volume (m³) of installed Sustainable Urban Drainage Systems (SUDS)

Despite representing only 0.6% of the surface area of the city of Madrid, the implementation of Sustainable Urban Drainage Systems planned in MNN will double the volume of SUDS storage available in the city’s current scenario, and will contribute 12.3% of the target volume of SUDS installed in Madrid by 2030.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
12.3
Halve global per capita food waste

DESCRIPTION

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

MADRID TARGET

Localisation target 12.1 - By 2030, reduce unrecovered organic waste from Mercamadrid’s food division.

INPUT

Government Operational Programme 2019 - 2023
Madrid, a city of opportunities
To guarantee the rights and duties of consumers and economic agents.
• Mercamadrid’s Strategic Plan for Investment and Development

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Single value</td>
</tr>
</tbody>
</table>
Sustainable consumption and production patterns involve the efficient use of resources, respect for resource constraints, and reducing pressure on natural capital to enhance overall well-being while maintaining a clean and healthy environment.

It is essential for cities to promote improved living standards through the efficient use of resources, which will help to reduce the negative environmental impact associated with resource consumption. Increasing the circularity of materials in the economy will also reduce the need for resource extraction and decrease the amount of waste ending up in landfills or incinerators.

The percentage of non-recovered organic material has increased due to significant improvements in waste treatment introduced in Mercamadrid over the last year, resulting in better measurement of the generated waste. However, it is safe to assume that the trend is positive, with less non-recovered organic waste generated than in the previous year. The forecast for meeting the 2030 goal remains unchanged.
12.5 Substantially reduce waste generation

**DESCRIPTION**

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

**MADRID TARGET**

Localisation target 12.2 - By 2030, steadily increase the volume of recyclable materials recovered in the city of Madrid.

---

**INPUT**

**Localisation Strategy for the SDGs of the 2030 Agenda**

Improve recycling facilities in the city of Madrid

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**

Promote entrepreneurship, competitiveness, innovation and technological knowledge.

- Collaborative networks: exchange of ideas, knowledge and services

Guarantee the rights and duties of consumers and economic agents.

- Consumer protection and defence

**Madrid, a sustainable city**

Making Madrid a green and clean city

- Improvements to the Valdemingómez Technology Park (PTV)

---

Integrated approach to the materials cycle and the management of waste, both from the construction phase and from the future operation of the city, assessing the implementation of a pneumatic collection system for the optimised management of urban waste once the new neighbourhoods are already inhabited.

---

Increase in recycling rates in residential, services and municipal sectors

Reduction of waste generation and smart management of waste transport
**INDICATORS TO MONITOR THE IMPLEMENTATION**

Expenditure on waste collection, management and treatment per inhabitant

---

**OUTPUT INDICATOR**

**Recycling rate**

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
</tr>
</tbody>
</table>

---

**IMPROVEMENT INDICATORS TO MONITOR THE IMPLEMENTATION**

Expenditure on waste collection, management and treatment per inhabitant

---

**IMPACT**

Madrid has made significant progress in improving recycling facilities throughout the city. Initiatives such as the recovery of plastic materials from the dismantling of existing buildings exemplify Madrid’s achievements in meeting the target recycling rate. This progress is reflected in other SDG12 indicators, such as the amount of domestic waste not recovered, which is included in target 12.3. As a result, Madrid's efforts towards waste treatment, recycling, and circularity are having a positive impact.
12.6
Encourage companies to adopt sustainable practices and sustainability reporting

DESCRIPTION
Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

MADRID TARGET
Localisation target 12.3 - By 2030, 100 per cent of large water-using companies must have a management plan audited by an accredited body.

INPUT

Government Operational Programme 2019 - 2023
Madrid, a city of opportunities
Strengthen the international positioning of the City and enhance the attractiveness of Madrid as a major tourism destination.
- Madrid, centre of audiovisual creation and production
Madrid, a sustainable city
Making Madrid a green and clean city
- Water Management in Madrid

OUTPUT INDICATOR

| Number of organisations with Eco-Management and Audit Scheme (EMAS) |
|-------------------------------------|----------------|-------|----------------|
| Disaggregation level                | Unit of measure | Year  | Update frequency |
| City/Municipality                   | n              | 2021  | Annual          |

![Graph showing number of organisations with EMAS]
Large corporations and transnational companies are important stakeholders in cities and should adopt sustainable practices and integrate sustainability information into their reporting cycle. This is especially relevant given their significant impact on a range of sustainability issues. By doing so, these companies can help improve the efficiency of decision-making processes for cities, while also reducing risk throughout their supply chain. Additionally, sustainability reporting enables cities to be more transparent about the risks and opportunities they face, allowing them to make informed strategic decisions. While there are several companies in Madrid with audited management plans, further efforts are necessary to integrate environmental, social, and governance reporting into existing financial and non-financial reporting models. To this end, the city could help facilitate the harmonisation of sustainability reporting requirements and practices, ensuring the comparability and reliability of information provided by companies. The EU Taxonomy could serve as a valuable instrument for guidance in this regard.
12.7 Promote sustainable public procurement practices

DESCRIPTION
Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

MADRID TARGET
Localisation target 12.4. - By 2030, 100 per cent of the contracts of the City Council and its bodies incorporate social or environmental clauses.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Inclusion of social and environmental clauses in new public contracts

Government Operational Programme 2019 - 2023
Madrid, a city of opportunities
Strengthen the international positioning of the City and enhance the attractiveness of Madrid as a major tourism destination.
• Madrid, centre of audiovisual creation and production

Madrid, a sustainable city
Making Madrid a green and clean city
• Strategic Cleaning Plan
• Waste Strategy of the City of Madrid

Madrid, responsible, transparent and easy
Progress towards a transparent, agile and ethical administrative organization, focused on citizenship.
• Public procurement as a tool for innovation and economic and social modernization
Output Indicator

Proportion of municipal contracts incorporating social or environmental criteria

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Last value</th>
<th>Update frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

Impact

Public procurement, guided by principles of fairness, transparency, openness, and non-discrimination, is becoming a strategic instrument for fostering sustainable development and contributing to market transformation. Therefore, it can play a critical role in promoting inclusive and sustainable economic growth as outlined by the 2030 Agenda, particularly with regards to SDG12. The Madrid City Council has proposed an initiative to support sustainable public procurement policies through the inclusion of social and environmental clauses in new public contracts. The EU Taxonomy could serve as a guide for the Municipality in establishing new norms and clauses to be included or modified in these contracts.
12.8 Promote universal understanding of sustainable lifestyles

DESCRIPTION

By 2030, ensure that persons everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

MADRID TARGET

Localisation target 12.5 - Increase the number of persons with awareness on sustainable development and a model of responsible and informed consumption, promoting the efficient use of natural resources and proximity consumption to reactivate the local economy and minimise environmental impact.

Localisation target 12.6 - Conduct training and informative actions aimed at vulnerable groups, providing them with knowledge about consumer products and goods, financial services and energy supplies so that, by improving their knowledge, they can exercise responsible and informed consumption of products and services.

Localisation target 12.7 - By 2030, increase accessibility to urban vegetable gardens in the city of Madrid.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda

Actions to promote responsible consumption and Fair Trade, including agreements and collaboration projects with other cities and entities.

Projects co-financed by the Madrid City Council in the field of Education for Sustainable Development and Global Citizenship.

Training and information actions aimed at vulnerable consumers.

Increase in the number of Urban Vegetable Gardens, Community Vegetable Gardens, Sustainable School Vegetable Gardens and Vegetable Gardens in Municipal Centres.
## Proportion of the population with access to an urban vegetable garden within a 10-minute walk

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Value</th>
<th>Update frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>21.7 (2019)</td>
<td>Single value</td>
</tr>
</tbody>
</table>

## Number of people made aware by projects co-financed by the Madrid City Council in the field of Education for Sustainable Development and Global Citizenship

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Year</th>
<th>Update frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Number</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing the increase in the number of people made aware over time](image)

---

### IMPACT

Madrid has made remarkable strides in promoting public awareness of sustainable development through various initiatives co-financed by the Madrid City Council. These include Education for Sustainable Development and Global Citizenship projects, training and information programs for vulnerable consumers, and an increase in the number of urban vegetable gardens in Municipal centres. Additionally, Madrid’s participation in European sustainable education and training programs, implemented not only in educational facilities but also in neighbourhoods, has played a significant role in promoting sustainable development education at all levels in a consistent and inclusive manner.
Strengthen resilience and adaptive capacity to climate-related disasters in all countries.

**DESCRIPTION**

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

**MADRID TARGET**

Localisation target 13.1 - Madrid has implemented a system to diagnose, plan and develop actions to adapt to climate change.

**INPUT**

Localisation Strategy for the SDGs of the 2030 Agenda

Urban Climate Study, Vulnerability Analysis, Urban Temperature Climate Network, "Madrid + Natural" Programme: diagnosis and assessment of risks and impacts related to climate change, strategic lines and report on actions

Integrated sustainability action plan including measures for environmental quality and climate change mitigation and adaptation.

**INDICATORS TO MONITOR THE IMPLEMENTATION**

Annual report on adaptation to Climate Change

Yes
The impacts of climate change pose a threat to the viability of social, environmental, and economic systems and may render some regions uninhabitable due to resource scarcity. The ability of individuals to adapt to climate change is dependent on their access to resources, while the adaptive capacity of cities hinges on their ability to act collectively in the face of climate variability and change.

As a result, assessing a city’s adaptive capacity involves examining the effectiveness, efficiency, and legitimacy of its resource management institutions. In Madrid, initiatives such as the Urban Climate Study, Vulnerability Analysis, Urban Temperature Climate Network, and “Madrid + Natural” Programme provide a diagnosis and assessment of the risks and impacts of climate change, as well as potential strategic avenues for improving the population’s resilience to these challenges.
13.2 Integrate climate change measures into policies and planning

DESCRIPTION
Integrate climate change measures into national policies, strategies and planning.

MADRID TARGET
Localisation target 13.2 - Madrid develops a decarbonisation roadmap, taking into account direct and indirect emissions, and has reduced 65 per cent of total greenhouse gas (GHG) emissions in Madrid by 2030 compared to 1990 values.

Localisation Strategy for the SDGs of the 2030 Agenda
Development of a decarbonisation roadmap
"Madrid + Natural" programme: diagnosis and assessment of risks and impacts related to climate change, strategic lines and report on actions

Government Operational Programme 2019 - 2023
Madrid, a sustainable city
  • Madrid 360°
Making Madrid a green and clean city
  • Noise Control
Promoting clean energy and air quality
  • Healthy and sustainable environment

Madrid, responsible, transparent and easy
Contribute to the achievement of the 2030 Agenda and its Sustainable Development Goals.
  • Strategy for the implementation of the 2030 Agenda

Madrid Nuevo Norte will implement various measures to reduce the levels of CO2, other particulate pollutants such as benzene and NO2 and dust in the air.
Madrid Nuevo Norte is part of Madrid's recently accepted candidacy for the Mission of Cities.
INDICATORS TO MONITOR THE IMPLEMENTATION

Annual report on adaptation to Climate Change

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Total greenhouse gas emissions per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>Municipality</td>
</tr>
</tbody>
</table>

IMPACT

There are numerous opportunities to further support policy integration between adaptation, sustainable development, and disaster risk reduction due to their common themes, scopes, and objectives within the three global agendas. In Madrid, such actions have been implemented at both theoretical and practical levels. The Madrid City Council has developed a decarbonisation roadmap that diagnoses and assesses the risks and impacts related to climate change, and proposes strategic lines and follow-up actions. The roadmap sets a target of a 65% reduction in greenhouse gas emissions by 2030 (compared to 1990), exceeding the European ambition by 10 points, and positioning Madrid on the path to climate neutrality by 2050. It defines eight decarbonisation levers to guide actions in the near future, including new transportation technologies, energy rehabilitation, and the definition of emission offsets as areas of action to achieve the decarbonisation goal.
14 LIFE BELOW WATER
14.1 Reduce marine pollution

DESCRIPTION
By 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution.

MADRID TARGET
No localisation target included in the Madrid’s “Localisation Strategy for the SDGs of the 2030 Agenda”.

The SDG14 is generally not considered relevant for inland cities that are not situated on the coast. However, the actions taken by these cities can still have a significant indirect impact on marine pollution. While Madrid may not explicitly include SDG14 in its strategy, an initiative has been identified in Madrid Nuevo Norte that could help reduce the indirect impact on this SDG.
Zoom-in: Madrid Nuevo Norte

14.1 Reduce marine pollution

Madrid Nuevo Norte Impact
Expanding the capacity and enhancing the treatment systems of the Valdebebas Water Reclamation Plant (WRP) is a significant step towards reducing pollution in the Jarama River, from the Valdebebas stream to the Henares River. This action contributes to the interconnected hydrological system of the Tagus river basin, which eventually flows into the Atlantic Ocean. Consequently, it positively impacts SDG target 14.1 to mitigate pollution of seas and oceans.

Madrid Nuevo Norte Indicator
Reduction of the pollutant load of discharges from the Valdebebas WRP.

Adaptation of the facilities and treatments at the Valdebebas WRP to ensure that discharges comply with the established charges for nitrate-vulnerable areas:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximum discharge load</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBOS</td>
<td>20</td>
<td>mg/l</td>
</tr>
<tr>
<td>Suspended solids</td>
<td>20</td>
<td>mg/l</td>
</tr>
<tr>
<td>Total Nitrogen</td>
<td>10</td>
<td>mg/l</td>
</tr>
<tr>
<td>P-total Phosphorus</td>
<td>1</td>
<td>mg/l</td>
</tr>
</tbody>
</table>

Design flow rates are increased and peak effluent loads are reduced.
Conserve and restore terrestrial and freshwater ecosystems

By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

Localisation target 15.1 - By 2030, ensure the conservation and sustainable use of the city’s forests and green areas by increasing tree cover.

Localisation Strategy for the SDGs of the 2030 Agenda

Increase in the number of municipally managed green urban areas

Government Operational Programme 2019 - 2023

Madrid, a sustainable city
Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.

- Urban regeneration
  - Recover and preserve public spaces and provide them with new facilities.
  - Public spaces renovated with accessibility and sustainability criteria

Urban trees and green spaces, projecting an environmental axis that will function as a structuring axis of development and also as a connector between Madrid and nature.
Creation of more than 445,000 m² of new green areas.
Use of plant species adapted to Madrid’s climate

INDICATORS TO MONITOR THE IMPLEMENTATION

Number of street trees

851,703 (2018)
Humans derive significant benefits from various ecosystem services, such as clean air, purified water, and food provision, as well as cultural services like outdoor recreation. Ecosystems also provide protection from natural disasters like flooding and mitigate the negative effects of climate change. The increase in the number of municipally managed green urban areas, as reflected in SDG11, and the abundance of urban trees and green spaces in Madrid city, as shown in the above indicator, could serve as a means of reconnecting Madrid with nature and aligning with the European trend of renaturalising urban areas.
**15.2 End deforestation and restore degraded forests**

**DESCRIPTION**
By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

**MADRID TARGET**
Localisation target 15.2 - By 2030, achieve 6 € per m² investment in green space conservation.

**INPUT**
- **Localisation Strategy for the SDGs of the 2030 Agenda**
  - Increase in the number of municipally managed green urban areas
  - Investment in green area conservation projects

- **Urban trees and green spaces, projecting an environmental axis that will function as a structuring axis of development and also as a connector between Madrid and nature, Creation of more than 445,000 m² of new green areas. Use of plant species adapted to Madrid’s climate**

**INDICATORS TO MONITOR THE IMPLEMENTATION**
Investment in conservation of green areas in €/m²

2.88 €/m² (2021)
Deforestation and forest degradation pose one of the most significant threats to forests globally, compromising the survival of numerous species and reducing the ability of forests to provide essential goods and services, such as clean air and water, healthy soils for agriculture, and climate regulation. Nature-based solutions, such as forest landscape restoration, can help cities mitigate the effects of deforestation and degradation and regain the ecological, social, climatic, and economic benefits of forests. Increasing the number and extent of municipally managed urban green spaces and trees in Madrid can directly counteract the effects of deforestation. Furthermore, the increased investment by the Madrid Municipality in green urban area projects, including the creation of more than 445,000 square metres of new green areas, has significant potential for reducing forest degradation and deforestation.
Prevent invasive alien species on land and in water ecosystems

By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

Localisation target 15.3 - By 2030, reduce the invasive species population.

Localisation Strategy for the SDGs of the 2030 Agenda
Design an action plan to control the population of Monk parakeets in the municipality.

<table>
<thead>
<tr>
<th>Number of Monk parakeets registered in the municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>Municipality</td>
</tr>
</tbody>
</table>

![Graph showing number of Monk parakeets registered in the municipality over years]
IMPACT

Invasive species can cause numerous problems, making them a significant concern for Madrid. From an environmental standpoint, they can have harmful effects on biodiversity, both directly and indirectly. Direct threats include competing with native species for resources, preying on them, and acting as disease vectors, while indirect threats include disrupting food webs and altering ecosystem conditions.

Economically, invasive species can cause a decline in agricultural crop yields, clog waterways, impact recreational opportunities, and lower waterfront property values. Additionally, efforts to control, remove, and prevent invasive species can incur significant costs.

Furthermore, invasive species can impact the welfare of human beings, as they may carry viruses or infections that could increase the spread of transmissible diseases, affecting SDG3.

Therefore, it is crucial for Madrid to take action to control invasive species, specifically the Monk or Grey-breasted parakeet. This species is particularly concerning as it has a high reproduction rate and can adapt to various habitats, leading to its alarming population growth in the Region of Madrid. It is also classified as an Invasive Alien Species (IAS) in Spain under Law 42/2007 on Natural Heritage and Biodiversity and Royal Decree 630/2013, which regulates the Spanish catalogue of IAS. Addressing this issue will be essential for achieving target 15.8 and will have a positive and wide-ranging impact on sustainability.
16 PEACE AND JUSTICE STRONG INSTITUTIONS
16.1
Reduce violence everywhere

**DESCRIPTION**
Significantly reduce all forms of violence and related death rates everywhere.

**MADRID TARGET**
Localisation target 16.1 - Steadily reduce the crime rate.
Localisation target 16.2 - Steadily reduce violence against children and young persons.

**INPUT**

Localisation Strategy for the SDGs of the 2030 Agenda
RUMI (Unified Register of Child Abuse) in the Community of Madrid

**Government Operational Programme 2019 - 2023**

**Madrid, a city for all families**
Facilitating education and housing as a vector for personal and social development.
- Improving coexistence and preventing bullying and violence in schools
- Guarantee equal opportunities between women and men, defend the rights of LGTBI persons and eradicate gender violence
  - Defence of the rights of LGTBI persons.

**Madrid, responsible, transparent and easy**
Progress in a transparent, agile and ethical administrative organization, focused on citizens.
- Open Government: Transparency and Open Data

Introduction of transversal routes in large open spaces.
Lighting and treatment of perimeter plots.
Providing activity on bridges and footbridges over tracks.
Creation of well-lit environments, with vitality and constant activity
### Crime rate

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/Municipality</td>
<td>X 1,000 inh.</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

#### Perception of safety in the city

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Index</td>
<td>2019</td>
<td>Annual</td>
</tr>
</tbody>
</table>

#### Population under 18 years of age who are victims of domestic violence

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Index</td>
<td>2020</td>
<td>Annual</td>
</tr>
</tbody>
</table>
Safety is a critical aspect of an individual's life, as any form of violence can have a detrimental impact on their quality of life. In Madrid, the city has implemented various strategies, such as the Unified Register of Child Abuse (RUMI), to reduce and prevent all forms of violence towards individuals, regardless of their age, gender identity, sexual orientation or beliefs. However, output indicators reveal that particular attention needs to be given to violence that occurs in domestic spaces, especially against children. Urgent and specific measures need to be taken by the city to address these issues and align the output indicators with the increased perception of safety that citizens should have.
16.1 Reduce violence everywhere

Impact
The presence of green areas, outdoor sports, and leisure facilities enhances the quality and availability of services provided by public open spaces to the population. Moreover, such equipment promotes safety in public open spaces, resulting in a positive impact on Target 16.1.

Madrid Nuevo Norte Indicator
Quality of public open spaces.

Quality of public open spaces

<table>
<thead>
<tr>
<th>Zone of influence without MNN</th>
<th>Zone of influence with MNN</th>
<th>Madrid Nuevo Norte</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT 16.5%</td>
<td>OUTPUT 29.5%</td>
<td>OUTPUT 72.1%</td>
</tr>
</tbody>
</table>

CAPTION: Green areas for public use, Public open spaces with green areas or sports areas.
16.6
Develop effective, accountable and transparent institutions

DESCRIPTION
Develop effective, accountable and transparent institutions at all levels.

MADRID TARGET
Localisation target 16.3 - Increase transparency and promote accountability by providing complete, useful, accessible and understandable information to citizens.
Localisation target 16.4 - The 100 per cent of procurement data will be made available to citizens in reusable and accessible formats for the evaluation of public activity and explotablitity through artificial intelligence models.
Localisation target 16.5 - Address all complaints and suggestions submitted by citizens.
Localisation target 16.6 - Full municipal transparency and response to all requests for access to municipal information in less than 20 days.
Localisation target 16.7 - Increase the set of high-value dataset in the open data portal.
Localisation target 16.8 - By 2030, the Madrid City Council will have an approved digital strategy in place and will be developing it effectively.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Increase the quantity and quality of information available on the council’s web portal and its accessibility.
Design and implementation of models based on artificial intelligence for the exploitation of data on public procurement.
Improve the citizen attention system, reducing the time required to access information.

Government Operational Programme 2019 - 2023
Madrid City for Opportunities
Incentivize economic activity by reducing taxes, fees, penalties and bureaucratic obstacles.
• Urban planning licenses, responsible declarations and prior communications: improvement of information and management.
Boosting the economy and supporting small businesses and the hotel and catering industry
• Action against illegal sales
Madrid, a city for all families
Increase the intervention capacity of municipal services to help the most vulnerable persons.
  • Assistance through Social Services
Enhancing safety and improving emergency response
  • Citizen protection and service
  • More and better facilities for the Municipal Police
  • More and better facilities for Fire Department and Samur
  • New joint facilities for the Municipal Police and Samur
To guarantee the sanitary conditions of the City and promote healthy habits that improve the quality of life.
  • Refurbishment, renovation and digital transformation of SFM (Servicios Funerarios Madrid)

Madrid, a sustainable city
Promote territorial transformation and rebalancing through rehabilitation, regeneration and urban renewal.
  • Urban planning licenses, responsible declarations and prior communications: improvement of information and management.

Madrid, responsible, transparent and easy
Deepening the digital transformation of the City Council
  • Digital Strategy of the City Council
Progress in a transparent, agile and ethical administrative organization, focused on citizenship.
  • Defence of public ethics - Good Governance
  • Madrid City Council Modernization Plan
  • Quality and Evaluation, continuous improvement of services and organizations.
  • Data Protection
  • European benchmark for 24 x 7 Administration
  • Modernization of the Municipal Register as an essential service for citizens and Public Administrations.
  • Effectiveness and efficiency of territorialized actions, within a stable framework of coordination.
  • Responsible economic and budgetary management
  • New management models of the Tax Agency Madrid
Encourage citizen participation and promote volunteering.
  • Open Government: Citizen Participation
Promote the professional development of municipal personnel
  • Madrid 2020-2023: Strategy for Transforming Human Resources Management
Contribute to the fulfilment of the 2030 Agenda and its Sustainable Development Goals.
  • Cooperation and global citizenship 2030

Madrid Nuevo Norte has an online platform to facilitate citizen participation in the project and promote transparency in the process.
Establishing effective, accountable, and transparent institutions at all levels is only possible when citizens trust and have confidence in political institutions. This requires access to information and accountability policies and mechanisms in place.

To contribute to this goal, Madrid City Council has improved the quality and quantity of information available on its website, making it more accessible to everyone. Additionally, Madrid has designed and implemented models based on artificial intelligence for budget data exploitation.

Madrid Nuevo Norte also contributes to this goal by creating an online platform that facilitates citizen participation in the project, promoting transparency and accountability within the process. These efforts will have a positive impact on the efficiency of urban governance, as outlined in SDG11, Target 5.2.1.
16.7
Ensure responsive, inclusive and representative decision-making

DESCRIPTION
Ensure responsive, inclusive, participatory and representative decision-making at all levels.

MADRID TARGET
Localisation target 16.9 - Institutionalise the Madrid Solidaria Forum as a participatory and consultation body in relation to global citizenship and international cooperation policy, guaranteeing the participation of all social actors involved in the development of this policy.
Localisation target 16.10 - Increase the participation of Madrid’s citizens through different platforms.
Localisation target 16.11 - Increase the number of participants in local forums or similar district participatory bodies.
Localisation target 16.12 - Increase the proportion of the population participating in Madrid Decide.
Localisation target 16.13 - Increase child and adolescent participation in all spheres of city life.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Institutionalisation of the Madrid Solidaria Forum
 Improvement of participation platforms
 Raise awareness of local forums and participation bodies, as well as of the Madrid Decide platform.
 Facilitate child and adolescent participation in all areas of city life.

Government Operational Programme 2019 - 2023
Madrid, a city for all families
 Increase the intervention capacity of municipal services to help the most vulnerable persons.
 • Tax reduction to favour the development of social activities

Madrid, a sustainable city
 Promoting clean energy and air quality
 • Healthy and sustainable environment
Three plots of land reserved for civic-associative spaces. Participatory process that has included focus groups and interviews with persons with physical and sensory disabilities, senior citizens, young persons with cerebral palsy and children with physical disabilities/ cerebral palsy for the development of urban planning. The Social Commitment Department has been working directly and constantly with neighbours, groups and associations for more than three years. Online platform to facilitate citizen participation in the project.

### OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Participatory budgeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>Municipality</td>
</tr>
</tbody>
</table>

![Graph showing trend over years](image)

### IMPACT

Achieving sustainable development requires inclusive decision-making that involves traditionally marginalised groups. Madrid has made a significant contribution to achieving Target 16.7, and its efforts have impacted other SDGs, particularly SDG3 (education), SDG4 (health), SDG5 (gender), SDG8 (decent work), and SDG10 (inequalities), as well as other targets within SDG16. The Madrid municipality has made progress in promoting inclusive and responsive decision-making by institutionalising the Madrid Solidaria Forum. It has also improved participation platforms and raised awareness of local forums, participation bodies, and the Madrid Decide platform to enable the participation of children and adolescents in all areas of city life.
PARTNERSHIPS FOR THE GOALS
17.1
Mobilize resources to improve domestic revenue collection

DESCRIPTION
Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection.

MADRID TARGET
No localisation target included in the Madrid’s Localisation Strategy for the SDGs of the 2030 Agenda.

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Strength and autonomy of the municipal institution in budgetary terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation level</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Triple analysis</td>
</tr>
</tbody>
</table>

IMPACT
The financial stability and budgetary capacity of a city are essential elements for fostering partnerships and collaborations with other cities. Madrid is an example of effective cooperation, as its budgetary capacity has remained positive, with the exception of a sharp decline due to the Covid-19 pandemic recovery. Therefore, it is imperative that Madrid focuses on short-term investment and capital generation strategies to ensure that this figure returns to optimal levels.
17.2
Implement all development assistance commitments

DESCRIPTION
Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries.

MADRID TARGET
Localisation target 17.1 - By 2030, consolidate a public policy of international action, global citizenship and international cooperation for development, in structure, strategy and financing, reaching 0.4 per cent of the municipal budget.

INPUT

Localisation Strategy for the SDGs of the 2030 Agenda
Allocation of unconsolidated municipal budget to global citizenship and international cooperation

OUTPUT INDICATOR

Proportion of the unconsolidated municipal budget allocated to public policy on global citizenship and international development cooperation

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Graph showing the proportion of the unconsolidated municipal budget allocated to public policy over time]
Over time, Madrid has consolidated its policy of promoting global citizenship and international cooperation for development, demonstrating its commitment to solidarity with the world's most vulnerable individuals, in line with the Strategic Framework for Global Citizenship and International Cooperation for Development. This framework was approved by the Governing Board of the Madrid City Council in 2018.
17.4
Assist developing countries in attaining debt sustainability

DESCRIPTION
Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress.

MADRID TARGET
No localisation target included in the Madrid’s Localisation Strategy for the SDGs of the 2030 Agenda.

OUTPUT INDICATOR

### Debt per GDP

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>%</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Debt per GDP Graph]

### Debt per inhabitant

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>€/hab</td>
<td>2021</td>
<td>Annual</td>
</tr>
</tbody>
</table>

![Debt per inhabitant Graph]
Public debt is a crucial tool for bridging government financing gaps. When used prudently, it can lead to higher economic growth, enhance capacity to service and repay external and domestic debt, and help the government achieve its social and developmental objectives. When compared against SDG8 indicators related to economic growth, the output indicator graphs suggest that Madrid is on a positive economic track. Furthermore, the city’s economic recovery has facilitated post-Covid-19 economic funds and increased international cooperation funds. To maintain progress towards the SDG8 target in the near future, it is relevant to utilize European funds.
17.8
Strengthen the science, technology and innovation capacity for least developed countries

DESCRIPTION
Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology.

MADRID TARGET
No localisation target included in the Madrid’s Localisation Strategy for the SDGs of the 2030 Agenda.

OUTPUT INDICATOR

<table>
<thead>
<tr>
<th>Disaggregation level</th>
<th>Unit of measure</th>
<th>Years</th>
<th>Update Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple analysis</td>
<td>%</td>
<td>2020</td>
<td>Annual</td>
</tr>
</tbody>
</table>

The regulations set by the Spanish government define Next Generation Access (NGA) white areas as locations without coverage by next-generation broadband networks or where no operator has credible investment plans to provide such coverage within three years. Similarly, NGA grey areas are defined as locations where only one operator has next-generation broadband coverage or plans to provide it within three years. In Spain, recent national efforts to expand broadband coverage have increased it to 92% of the population. To align with the city’s objectives of greater connectivity, future reports should show a decrease in the values presented in the previous graph.

* Considering that the FUA contemplates the territories detailed in the methodology section.
17.14
Enhance policy coherence for sustainable development

DESCRIPTION
Enhance policy coherence for sustainable development.

MADRID TARGET
Localisation Target 17.2 - To achieve coherence of municipal policies with the Localisation Strategy 2030 and to achieve this in a participatory manner.

INPUT

Government Operational Programme 2019 - 2023
Madrid, responsible, transparent and easy
Contribute to the fulfilment of the 2030 Agenda and its Sustainable Development Goals.
- Strategy for the implementation of the 2030 Agenda
- Cooperation and global citizenship 2030

Coordination offices with Madrid City Council and the Autonomous Community of Madrid.

INDICATORS TO MONITOR THE IMPLEMENTATION
The City of Madrid has a Localisation Strategy for the 2030 Agenda drawn up in coherence with the Government’s Operational Programmes.
The formulation and monitoring of the localisation strategy of the 2030 Agenda for the city of Madrid is carried out in a participatory manner with the various social agents through the Madrid Solidaria Forum.

IMPACT
Having a government strategy and plan that align with global agendas and are voluntarily evaluated is a significant achievement for achieving coherence in a city’s public policy, as seen in Madrid. Reports, such as this VLR, should be followed up on, and their continuity should be encouraged to ensure that the coherence attained is not lost in the decision-making process.
Encourage effective partnerships

**DESCRIPTION**
Encourage and promote effective public, public-private, and civil society partnerships, building on the experience and resourcing strategies of partnerships.

**MADRID TARGET**
Localisation target 17.3 - Increase Madrid City Council's participation in international networks.
Localisation target 17.4 - Increase public-private collaboration through the Business Forum for Madrid platform for the promotion of strategic projects beneficial to the city of Madrid.

**INPUT**

**Government Operational Programme 2019 - 2023**

**Madrid, a city of opportunities**
Promote entrepreneurship, competitiveness, innovation and technological knowledge.
- International economic promotion of the City of Madrid
- Public-private collaboration in City projects
- Collaborative networks: exchange of ideas, knowledge and services
Strengthen the international positioning of the City and enhance the attractiveness of Madrid as a major tourist destination.
- Madrid Brand

**Madrid, a sustainable city**
Promoting clean energy and air quality
- Healthy and sustainable environment

**Madrid, an open, cultured and sporting city** to promote culture in its universal and local perspective.
- Support for cultural creation

**Madrid, responsible, transparent and easy**
- Institutional image of Madrid

Public direct production of €1,813 million.
Private direct production of €5,491 million.
Representing an ambitious public-private partnership by itself.
IMPACT

Madrid has become an exemplary city in Spain and Europe in terms of collaboration. It has shown a strong commitment to public-private partnerships, such as the Madrid Nuevo Norte project. Recently, the city has also fostered numerous collaborations between the academic sector, public and private enterprises to aid in post-pandemic recovery. The alignment of local agendas with global objectives requires cities to work together and share best practices to achieve their goals by 2030, and as per the latest statutes of the European Commission, until 2050.

Zoom-in: Madrid Nuevo Norte

17.17 Encourage effective partnerships

Impact
Public direct investment of €1,813 million.
Private direct investment of €5,491 million.

Living laboratories for the construction of smart green neighbourhoods - a project financed by European PROBONO funds.
PROBONO brings together a multidisciplinary European consortium of 47 partners, including Madrid City Council and Madrid Nuevo Norte, to convert six European districts (PROBONO Living Labs) into Green Building Neighbourhoods (GBN) with positive energy balance and zero carbon emissions. The project includes two large-scale demonstrators (Madrid and Dublin) and four living labs representing companies and owners promoting the transition of green buildings and neighbourhoods (Porto, Brussels, Aarhus, Prague).

Urban regeneration to reduce emissions from new buildings - EIT Climate-KIC, with the support of Fundación Laudes.
EIT Climate-KIC joins Laudes Foundation’s Built by Nature through its project “Healthy, Clean Cities: European Cities for Carbon Neutral Construction” (HCC EU CINCO), working with the municipalities of Milan and Madrid. The project integrates the systemic approach of the EIT Climate-KIC Deep Demonstration methodology, bringing a transdisciplinary and transversal alignment towards shared societal objectives.

Development of low carbon heating and cooling systems - Horizon 2020 research and innovation programme.
The project includes a case study of the use of the THERMOS tool to test whether the heating and cooling demand could be covered cost-effectively with a 4th generation heating and cooling network based on geothermal energy. Madrid Nuevo Norte is one of the case studies in this project, and the most cost-effective areas for the implementation of the network were identified through this study.
CHAPTER 7
Conclusions and Final Comments
The city of Madrid approved its Sustainable Development Goals Localisation Strategy in March 2021. This set of 104 local targets and 160 indicators, which reflect Madrid’s contributions and efforts towards the SDGs, has already undergone two monitoring reports based on statistics collected for the years 2020 and 2021 and compared to the situation in 2015. Submitting a Voluntary Local Review to the United Nations is a significant step to contribute to global reporting and sustainability efforts, particularly those of local governments, and to align Madrid’s approach with that of other cities, with the aim of sharing, comparing, and contributing to best practices and efforts towards environmental, social, and economic sustainability in urban areas.

Key areas in this VLR are our city’s efforts to mitigate climate change and reduce greenhouse gas emissions, as well as the opportunity to develop a sustainable and almost carbon-neutral new city area called Madrid Nuevo Norte from scratch. Both require engagement from various levels and departments within our administration, and significant contributions from the private sector. These case studies also prove the city’s local action towards meeting global targets.

Madrid has been working to strengthen partnerships between city departments and SDG stakeholders to more systematically engage in the most effective ways to address shared challenges. Once our localisation and progress indicators scheme has been fully integrated and automated within the Madrid City Council, creating opportunities for discussion with other territories must be our next step. Hopefully, we will have a new model to share with other cities.

Our progress reports are based on statistics published by various entities and institutions. Such progress is not only, and not always, the result of Madrid City Council policies but rather a collective effort of civil society. Knowing better what each actor is doing and how it contributes will clear the path for full implementation of the local strategy, our contribution to other territories, and building better urban resilience.

We are interested in and will monitor other VLRs from cities, as learning from others is crucial. Reflecting, exchanging, writing up, reviewing, sharing, and submitting this report has been nurturing for our team at Madrid City Council and the broader city system. Therefore, creating opportunities for these discussions with other territories will enhance our SDG monitoring practice and the format and process of future Madrid VLRs.

With all the efforts of the Madrid City Council and collaboration with external partners through the Foro Madrid Solidaria and other participatory channels in mind, we can conclude that the Madrid Voluntary Local Review is the result of an integrated and coherent internal effort of all areas of the Council. This forum serves as a space for stakeholders related to the international environment to double-check city policies, propose and discuss new actions, or better shape existing ones.

After adopting the global sustainability agendas in 2015 and 2016, intergovernmental organisations, national and subnational governments, and local authorities began the process of aligning policies and budget allocations to achieve the transformative vision required to address global and local challenges. The alignment capacity and its implementation were influenced by several factors, depending on regions and countries, such as the electoral cycles in those countries with a democratic political system. From 2017 to 2019, the most relevant examples of structured approaches to achieving the SDGs started to be applied and shared publicly. This was not only the case for strategies or plans but also for the SDGs monitoring efforts.

As explained in the initial chapters, the VLRs have followed the same incremental pattern since 2017. For example, 22 countries submitted a Voluntary National Review on the SDGs progress in 2016. In 2017, 43 new countries submitted their
Voluntary National Reviews to the United Nations High Level Political Forum. In 2018, the total number of countries that had at least submitted one Voluntary National Review was 111, including Spain. In 2019, the number continued to increase to 143 countries. As of October 2022, 188 of the 193 United Nations members have presented at least one Voluntary National Review.

In 2019, the Madrid City Council adopted a multidimensional approach to achieve the SDGs. The internal dimension maximised coherence in the planning and budgeting exercise for the period 2019-2023. The SDG Localisation Strategy for the city of Madrid and the Government Operational Programme 2019-2023 are the reference documents for this effort.

A second key dimension is aligning any medium or long-term investment opportunity for the city with the SDGs achievement framework, consistent with other levels of administration (European, national, autonomous community). This is especially crucial after the Covid-19 pandemic outbreak and the establishment of European and Spanish recovery funds to address its health, social and economic impact. The pivotal instruments for this are the Recovery, Transformation and Resilience Plan of the city of Madrid, and the Next Generation EU funds, which are being implemented rapidly.

Two additional dimensions should be added, both of which are pioneering proposals. The first is the close linkage with the territorial impact, aligning the SDGs localisation efforts with the New Urban Agenda, the Madrid Urban Agenda, and its action plan approved in September 2022. The second is the leading role in supporting international efforts to create common and harmonised SDGs monitoring frameworks at the local level.

The global dimension of this Madrid Voluntary Local Review should be understood in this second dimension, as outlined in the introductory chapters. Madrid is not only presenting a Voluntary Local Review to report on the SDGs progress in the city, but it is also doing so by applying the methodology proposed by the United Nations (the Global Urban Monitoring Framework) as the reference and introducing an analysis of how an ongoing urban transformation project and a city-wide thematic field roadmap could impact in the achievement of the SDGs.

The main purpose of the multidimensional integrated exercise in this VRL is to strengthen the long-term transformative impact of public policies in Madrid. The results of the analysis published in this Voluntary Local Review, mainly in Chapter 5, provide a first indication of the positive trend in most of the SDGs localisation efforts.

By analysing, the impact in the city of Madrid and the Madrid Functional Urban Area, as proposed by the Global Urban Monitoring Framework methodology, it is possible to observe the effects of public policies on a territory with more than 6.7 million inhabitants. The need for inter-municipal collaboration to implement coherent territorial plans and projects is more evident than ever when discussing increasing inclusiveness, equality, accessibility, or effective climate action.

Adding two focal case studies to the Madrid Voluntary Local Review represents an innovative contribution that presents further opportunities for future VLRs. In addition to the territorial process of localising the SDGs by the Madrid Nuevo Norte and the sectoral approach of the Roadmap to Climate Neutrality by 2050, other transversal analyses could also be considered in the future, as new projects and challenges arise in a growing, dynamic city.

Possible areas for in-depth analysis in the context of SDG localisation include gender, ageing citizens, migrant integration, energy, housing access, economy, talent, and job market, among others, based on the evolution of various indicators reported by the city. Different city departments and stakeholders have made efforts in these areas. Mapping these coordinated, integrated, and territorial efforts
would enable the Madrid City Council to plan policies aligned with the effective achievement of the SDGs.

As the final element of this first Madrid Voluntary Local Review, it is worth highlighting the multidimensional approach already described and the profound multi-stakeholder spirit that characterises the planning, implementation, and monitoring of SDGs localisation. The multilevel and multi-stakeholder collaboration in the implementation of the Madrid Localisation Strategy is crucial for the collective achievement the global challenges require. As SDG 17 emphasises, partnerships and cooperation are vital for realising the vision of the 2030.

The Foro Madrid Solidaria and the Foro de Empresas por Madrid are two platforms that promote a permanent dialogue and engage key actors in SDGs localisation. The ability to generate alliances, shared roadmaps and investments will serve as success factors for increasing citizens’ quality of life and ensuring a sustainable future.

Understanding impact helps to improve, reinforce, and boost transformational public policies. It should also contribute to informing Madrid’s citizens on how we are collectively and systematically advancing in achieving common and shared objectives. The Madrid Voluntary Local Review is published to be updated in subsequent years and consolidate its function as more than a monitoring tool.

Submitting this review not only expands our perspective, strengthens our local reports published and distributed to local stakeholders, and consolidates our international vocation but also serves as a reminder to every municipal worker that the implementation of the SDGs takes place every day in every neighbourhood of the city. Every action counts, and this VLR aims to showcase the best of them.

All 17 SDGs must be achieved, and many people worldwide are already working towards this goal. Engaging more people within our organisations, fostering good practices, and building momentum around this joint endeavour are reasons why we are submitting this report, as well as a result of it.

While different societies and territories require different solutions, we must keep in mind that the principles of the Sustainable Development Goals are a global objective. Madrid has notably increased its alliances (SDG 17) to do its share in this effort, and our participation in events and debates regarding this matter has also increased.

As the second largest municipality in the European Union, a prominent capital of the Ibero-American world, and a city connected worldwide, our actions, views, and dreams are worth scrutiny and discussion. We genuinely hope they will help other stakeholders and territories find solutions and maybe even inspire them to submit their VLRs. But, above all, we value learning from our counterparts and appreciating everything they are doing for a better world. We feel proud to be part of a global community working towards a shared goal for a better world.
REFERENCES


UCLG. (2022). Towards the localization of the SDGs. Local and regional governments breaking through for a sustainable and just recovery. 6th Local and Regional Governments’ Report to the 2022 HLPF. Retrieved from https://gold.uclg.org/sites/default/files/hlpf_2022.pdf


ANNEXES
### ANNEX 1. INDICATORS’ DESCRIPTION

#### 1.2 At risk of poverty rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>17.70</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>14.83</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>18.89</td>
</tr>
</tbody>
</table>

The at risk of poverty rate refers to the percentage of individuals whose disposable income (after social transfer) is below the at risk of poverty threshold, set at 60% of the national median disposable income (after social transfers). This indicator does not measure wealth or poverty. Instead, it measures low income concerning other residents in the same country. A low-income level does not necessarily indicate a low standard of living. The equal disposable income is calculated by taking the total income of a household, deducting tax and other expenses, and dividing the remaining amount by the number of household members. To account for the varying needs of each household member, they are equalised or made equivalent by applying the modified OECD equivalence scale, which assigns weightings according to age.

#### 1.3 At risk of poverty rate (Over 65 Years)

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>9.40</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>9.23</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>12.54</td>
</tr>
</tbody>
</table>

The proportion of the population over 65 years of age (older people) with a disposable income (after social transfer) below the at-risk-of-poverty threshold is set at 60% of the national median disposable income (after social transfers).

#### 1.3 At risk of poverty rate (Under 18 Years)

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>24.50</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>19.63</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>23.61</td>
</tr>
</tbody>
</table>

The proportion of the population under 18 years of age (children) with a disposable income (after social transfer) below the at-risk-of-poverty threshold is also set at 60% of the national median disposable income (after social transfers).

#### 1.3 Number of families receiving the Regional Minimum Income (RMI) or income guarantee programmes

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>n</td>
<td>14,371.00</td>
</tr>
</tbody>
</table>

The number of families receiving RMI, which is a variable amount benefit granted as social assistance after fulfilling specific minimum requirements. It comprises of a basic monthly benefit and a variable supplement.
### 1.4 Percentage of persons who fall behind in their utility bill payments

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>9.4</td>
</tr>
</tbody>
</table>

The percentage indicates whether a household has had financial difficulties covering their utility bills (including heating, electricity, gas, water, etc.) on time.

### 1.4 Percentage of the population unable to maintain a comfortable temperature at home

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>10.8</td>
</tr>
</tbody>
</table>

The percentage represents the proportion of individuals who cannot keep their homes adequately warm. This indicator is based on the question, “Can your household afford to keep its home adequately warm?” and measures affordability, regardless of the household’s need for warmth.

### 2.1 Percentage of the population who cannot afford a meal of meat, poultry, or fish at least every second day

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>4</td>
</tr>
</tbody>
</table>

Food poverty is one element of the poverty experience. It refers to the inability to have an adequate and nutritious diet due to affordability or accessibility issues. The ability to afford a meal of meat, poultry, or fish (or vegetarian equivalent) every second day is one of the factors that determine severe material and social deprivation at a household level. These indicators represent the proportion of the population living in food poverty out of the total population of the area.

### 2.2 Share of child population (aged between 2 and 17) with a Body Mass Index (BMI) of overweight or obesity

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>32.00</td>
</tr>
</tbody>
</table>

The proportion of the population between 2 and 17 years of age who suffer from overweight or obesity according to WHO standards. Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity, it is defined as a person’s weight in kilograms divided by the square of their height in meters (kg/m²). Growth reference standards for children can be found here: [https://www.who.int/tools/growth-reference-data-for-5to19-years/indicators/height-for-age](https://www.who.int/tools/growth-reference-data-for-5to19-years/indicators/height-for-age)

### 2.2 Share of population (aged over 18) with a Body Mass Index (BMI) of overweight or obesity

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>46.8</td>
</tr>
</tbody>
</table>

Proportion of the population over 18 years of age who suffer from overweight or obesity according to WHO standards.

- **Overweight:** BMI-for-age greater than 1 standard deviation above the WHO Growth Reference median.
- **Obesity:** BMI greater than 2 standard deviations above the WHO Growth Reference median.

Body mass index (BMI) is a simple index of weight-for-height, defined as a person’s weight in kilograms divided by the square of their height in meters (kg/m²).
### 2.3 Tons of proximity products commercialized in Mercamadrid

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Ton</td>
<td>143,200</td>
</tr>
</tbody>
</table>

Weight of products commercialized in Mercamadrid that are produced within a radius of no more than 100 Km from Madrid.

### 3.4 Life expectancy at birth

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Years</td>
<td>85.10</td>
</tr>
<tr>
<td>GMA</td>
<td>Years</td>
<td>84.08</td>
</tr>
</tbody>
</table>

Life expectancy at birth is a measure of how long, on average, a newborn can expect to live if current death rates remain unchanged. However, the actual age-specific death rate of any birth cohort cannot be known in advance. If rates are falling, actual life spans will be higher than life expectancy calculated using current death rates.

Life expectancy at birth is one of the most frequently used health status indicators. Gains in life expectancy at birth can be attributed to several factors, including rising living standards, improved lifestyle and better education, as well as greater access to quality health services. This indicator is presented as a total and by gender and is measured in years.

### 3.4 Premature mortality rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>x10,000</td>
<td>12.79</td>
</tr>
<tr>
<td>GMA</td>
<td>x10,000</td>
<td>10.29</td>
</tr>
<tr>
<td>FUA</td>
<td>x10,000</td>
<td>11.91</td>
</tr>
</tbody>
</table>

Premature mortality focuses on deaths among younger age groups of the population, specifically those under 65 years old.

### 3.5 Harmful alcohol consumption per capita (15 years of age and older)

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>7.57</td>
</tr>
</tbody>
</table>

The proportion of the population aged 15 years and over who engage in a harmful alcohol consumption. This is defined as having an intensive drinking episode between one and three times per month, but not every week. An intensive alcohol consumer is defined as a man who consumes more than six standard drink units (equivalent to 60 g of pure alcohol) in the interval of four to six hours, or a woman who consumes more than five standard drink units (equivalent to 50 g of pure alcohol) in the same period of time.

### 3.6 Traffic fatalities

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>x100,000</td>
<td>1.09</td>
</tr>
<tr>
<td>GMA</td>
<td>x100,000</td>
<td>0.93</td>
</tr>
<tr>
<td>FUA</td>
<td>x100,000</td>
<td>0.81</td>
</tr>
</tbody>
</table>

A traffic fatality is defined as a person who is killed immediately or dies within 30 days as a result of a road traffic accident. This is calculated by dividing the total number of traffic fatalities per year by the total city population and expressing it as a rate per 100,000 people.

\[
\text{Traffic fatalities} = \frac{\text{Total traffic fatalities per year}}{\text{City population}} \times 100,000
\]
3.7 Percentage of consultations on Sexually Transmitted Infections (STIs) in Medical Specialty Centres

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>83.7</td>
</tr>
</tbody>
</table>

The percentage of consultations related to sexually transmitted infections (STIs) conducted in peripheral medical specialty centres.

3.7 Percentage of new family planning consultations within the sexual and reproductive health program

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>21.4</td>
</tr>
</tbody>
</table>

The percentage of family planning consultations within the Madrid Salud programme aimed at promoting sexual and reproductive health, preventing unplanned/unwanted pregnancies, and addressing issues related to sexuality, such as HIV/STIs, sexual dysfunctions, discrimination, sexual and gender-based violence, etc.

3.8 Population with household health expenditures greater than 10% of total household expenditure or income

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>8.04</td>
</tr>
</tbody>
</table>

The proportion of the population whose household health expenditures make up a significant share of their total household expenditure or income. This is measured using two thresholds, 10% and 25%. This indicator is used to monitor the second dimension of universal health coverage within the SDG monitoring framework (SDG indicator 3.8.2). Household expenditures on health are defined as formal and informal payments at the time of receiving any type of care, including preventive, curative, rehabilitative, palliative, or long-term care, provided by any type of healthcare provider. These payments include the part not covered by a third party, such as an insurer, and are known as out-of-pocket payments (OOPs - SHA 2011). When OOPs exceed a predefined threshold of a household’s ability to pay, they are likely to expose households to financial hardship.

3.8 Population with household health expenditures greater than 25% of total household expenditure or income

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>0.98</td>
</tr>
</tbody>
</table>

The proportion of the population that has high household expenditure on health as a percentage of their total household expenditure or income. A household is considered to have large health expenditure if it exceeds two thresholds, 10% and 25%. This indicator is used to monitor the second dimension of universal health coverage within the SDG monitoring framework (SDG indicator 3.8.2). Household expenditures refer to formal and informal payments made at the time of receiving any type of care, including preventive, curative, rehabilitative, palliative, or long-term care, from any type of provider. These payments include the portion not covered by a third party, such as an insurer, and correspond to out-of-pocket payments (OOPs - SHA 2011). When OOPs exceed a household’s ability to pay, they can cause financial hardship.
### 4.1 Uneducated young persons

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>5.83</td>
</tr>
</tbody>
</table>

The proportion of the population aged between 25 and 29 who are unable to read or write, have no formal education, or have not completed primary education.

### 4.2 Children 0-4 in daycare or school

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>x1,000</td>
<td>679.40</td>
</tr>
<tr>
<td>GMA</td>
<td>x1,000</td>
<td>751.21</td>
</tr>
<tr>
<td>FUA</td>
<td>x1,000</td>
<td>710.70</td>
</tr>
</tbody>
</table>

The number of children between 0 and 4 years of age enrolled in early childhood education or preschool. Equal access to quality pre-primary education, early childhood education and care is often the first step in a child’s educational pathway. While this stage of education is not compulsory in Spain, it is the only non-public educational stage.

### 4.4 Proportion of the population aged 25-64 qualified with the highest level of education

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>54.41</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>48.24</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>48.20</td>
</tr>
</tbody>
</table>

The population that has completed the highest level of education (ISDEC 5-8) by age group, including both theoretical programmes leading to advanced research or high-skill professions such as medicine and more vocational programs leading to the labour market. The measure is expressed as a percentage of the same-age population, and data is also available by gender.

### 4.7 Number of beneficiaries of formal education (primary, secondary and university education) trained in projects co-financed by the Madrid City Council on Education for Sustainable Development and Global Citizenship

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>n</td>
<td>143910</td>
</tr>
</tbody>
</table>

Indicator that monitors the results of the training efforts in Education for Sustainable Development and Global Citizenship in formal education made by the Madrid City Council. It measures the number of individuals reached by the implemented financing schedules.

### 5.1 Difference between at risk of poverty rate by gender

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>5.85</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>9.33</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>9.03</td>
</tr>
</tbody>
</table>

The relative proportion of the population with an equal disposable income (after social transfer) below the at risk of poverty threshold, which is set at 60% of the national median equal disposable income after social transfers. The measurement is taken by gender.
## 5.2 Number of fatal victims of gender-based violence in the city of Madrid

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>n</td>
<td>4</td>
</tr>
</tbody>
</table>

The number of women who have died due to physical or mental violence against them by a man who is or was their spouse or was associated with them through an equivalent sentimental relationship, albeit without cohabiting.

## 5.2 Crimes of gender-based violence

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>n</td>
<td>13855</td>
</tr>
</tbody>
</table>

Gender-based violence (GBV) is violence directed against a person because of their gender, or violence that disproportionately affects individuals of a particular gender. The GBV can take various forms, including:

- **Physical violence**: this can result in injuries, distress and health problems. Typical forms of physical violence include beating, strangling, pushing and the use of weapons. In the EU, 31% of women have experienced one or more acts of physical violence since the age of 15.
- **Sexual violence**: this includes sexual acts, attempts to obtain a sexual act, acts to traffic, or acts otherwise directed against a person's sexuality without the person's consent. It’s estimated that one in 20 women (5%) has been raped in EU countries since the age of 15.
- **Psychological violence**: this includes psychologically abusive behaviours, such as controlling, coercion, economic violence and blackmail. In the 28 EU countries, 43% of women have experienced some form of psychological violence by an intimate partner.

## 5.4 Ratio of domestic and care work

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Ratio</td>
<td>5.35</td>
</tr>
</tbody>
</table>

The proportion of women who do not participate in the labour market due to their involvement in domestic and care work compared to men in the same situation. Unpaid domestic and care work includes services provided for the final use of household members or family members living in other households. These activities are categorised in ICATUS 2016 as “3. Unpaid domestic services for household and family members” and “4. Unpaid caregiving services for household and family members”. The ratio is calculated by dividing the number of women by the number of men.

## 5.4 Proportion of seats held by women in sub-national/local governments

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Ratio</td>
<td>5.35</td>
</tr>
</tbody>
</table>

Measures the proportion of positions held by women in local government. It represents the percentage of elected positions held by women in the legislative/deliberative bodies of local government.

## 5.5 Ratio of men to women in management positions

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Gender equality indicator, represented by the proportion of managerial positions held by men and women.
### 6.3 Percentage of wastewater treated in nutrient removal and advanced tertiary filtration and disinfection facilities in Madrid

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>40.00</td>
</tr>
</tbody>
</table>

The proportion of wastewater generated in Madrid that undergoes nitrogen and phosphorus removal processes, as well as additional treatments for the removal of suspended particles and microbial load. The aim is to maintain sufficient effluent quality to be reused as a source of non-drinking water.

### 6.4 Domestic water consumption per capita

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>l/hab/día</td>
<td>120</td>
</tr>
</tbody>
</table>

The average amount of water used to cover household and related utility needs of the population through the water supply industry and self-supply, expressed as “litres per capita per day.”

### 6.4 Total water consumption per capita

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>l/hab/día</td>
<td>160.90</td>
</tr>
<tr>
<td>GMA</td>
<td>l/hab/día</td>
<td>176.31</td>
</tr>
<tr>
<td>FUA</td>
<td>l/hab/día</td>
<td>190.62</td>
</tr>
</tbody>
</table>

The average amount of water used in an area for domestic and industrial purposes, both through the water supply industry and self-supply. It is expressed as litres per inhabitant in the area per day.

### 6.6 Kilometres of restored watercourses on urban land

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Km</td>
<td>12.00</td>
</tr>
</tbody>
</table>

Restoration is a process that supports the recovery of degraded, damaged, or destroyed ecosystems and aims to reintroduce nature and biodiversity into various areas, such as agricultural and forest land, marine environments and urban spaces.

### 7.2 Percentage of total electrical energy consumed that is generated by municipal photovoltaic installations

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>2.48</td>
</tr>
</tbody>
</table>

The proportion of energy consumption in municipal buildings that is covered by energy generated by municipal photovoltaic installations.

### 7.2 Renewable energy share of energy consumed

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>37.00</td>
</tr>
</tbody>
</table>

The percentage of final energy consumption that comes from renewable resources.
### 7.3 Energy intensity rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>tep/M€</td>
<td>0.65</td>
</tr>
<tr>
<td>GMA</td>
<td>tep/M€</td>
<td>1.06</td>
</tr>
<tr>
<td>FUA</td>
<td>tep/M€</td>
<td>1.79</td>
</tr>
</tbody>
</table>

The energy intensity rate is the ratio between gross inland energy consumption (GIEC) and gross domestic product (GDP), calculated for a given calendar year. The GIEC is calculated as the sum of the gross inland consumption of five sources of energy: solid fuels, oil, gas, nuclear and renewable sources. The energy intensity rate can also be used as a proxy for energy efficiency. However, this use can be misleading as energy intensity depends on numerous elements beyond energy efficiency, such as climate, output composition, and outsourcing of goods produced by energy-intensive industries.

### 8.1 Gross Domestic Product annual growth rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>9.9</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>4.10</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>2.90</td>
</tr>
</tbody>
</table>

The annual average rate of change of the Gross Domestic Product (GDP) at market prices, based on constant local currency, for a given national economy during a specified period of time. It expresses the difference between GDP values from one period to the next as a proportion of the GDP from the earlier period, usually multiplied by 100. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for the depreciation of fabricated assets or for depletion and degradation of natural resources.

### 8.2 Productivity ratio

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Ratio</td>
<td>7.27</td>
</tr>
<tr>
<td>GMA</td>
<td>Ratio</td>
<td>2.45</td>
</tr>
<tr>
<td>FUA</td>
<td>Ratio</td>
<td>4.70</td>
</tr>
</tbody>
</table>

The difference between the Gross Domestic Product Annual Growth and the Employmen Annual Growth. It measures whether the growth in GDP is pushed by the creation of employment. Productivity is considered a key source of economic growth and competitiveness and, as such, is a basic statistical information for many international comparisons and country performance assessments. Extremes values indicate that the local economy is not sustainable.
8.3 Small and Medium Enterprises per 1,000 inhabitants

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>x1,000</td>
<td>126.70</td>
</tr>
<tr>
<td>GMA</td>
<td>x1,000</td>
<td>115.43</td>
</tr>
<tr>
<td>FUA</td>
<td>x1,000</td>
<td>110.35</td>
</tr>
</tbody>
</table>

This indicator is measured as the number of employees in the manufacturing sector. An enterprise is defined as a legal entity possessing the right to conduct business on its own, for example, to enter contracts, own property, incur liabilities, and establish bank accounts. An enterprise may be a corporation, a quasi-corporation, a non-profit institution, or an unincorporated enterprise. Enterprises can be classified into different categories according to their size. For this purpose, different criteria may be used, but the most common is the number of people employed. Small and medium-sized enterprises (SMEs) employ fewer than 250 people. SMEs are further subdivided into micro-enterprises (fewer than 10 employees), small enterprises (10 to 49 employees), medium-sized enterprises (50 to 249 employees). Large enterprises employ 250 or more people. The definition of Small and Medium-sized Enterprises (SME) varies across countries and organizations. The most commonly used denominator for a definition is the number of employees, followed by turnover and assets.

8.4 Percentage of public contracts with fair trade and sustainable consumption and production clauses out of total municipal contracting

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

Indicator that measures the commitment of Madrid City Council to fair trade and sustainable consumption and production in municipal procurement.

8.5 Employment rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>55.11</td>
</tr>
</tbody>
</table>

The ratio of the employed to the working age population (over 16 years old). It measures the extent to which available labour resources (people available to work) are being used. Employment rates are sensitive to the economic cycle, but in the longer term, they are significantly affected by government policies on higher education, income support, and the employment of women and disadvantaged groups. Employed people are those aged 16 or over who report that they have worked in gainful employment for at least one hour in the previous week, or who had a job but were absent from work during the reference week. The working age population refers to people aged over 16.

8.5 Female employment rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>51.06</td>
</tr>
</tbody>
</table>

The female labour force as a percentage of the total. It shows the extent to which women are active in the labour force. The indicator is calculated as the proportion of employed females to the population over 16 years of age.

8.5 Female unemployment rate gap

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>12.59</td>
</tr>
</tbody>
</table>

The percentage of the population without work, who have been seeking work in a recent period, and are currently available for work, and who are females, as a proportion of the total working age population (over 16 years of age).
8.5 **Senior employment rate**

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>43.68</td>
</tr>
</tbody>
</table>

The proportion of the employed population who are over 55 years of age as a proportion of the total working age population (over 16 years of age).

8.5 **Unemployment rate**

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>11.43</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>11.14</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>11.7</td>
</tr>
</tbody>
</table>

The unemployment rate is calculated by dividing the total number of unemployed (for a country or a specific group of workers) by the corresponding labour force, which itself is the sum of the total persons employed and unemployed in the group. Persons in employment are defined as all those of working age (16 years or older) who were not in employment, carried out activities to seek employment during a specified recent period and were currently available to take up employment given a job opportunity.

8.5 **Youth unemployment rate**

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>32.60</td>
</tr>
</tbody>
</table>

Youth unemployment refers to the situation of young individuals who are actively seeking employment but are unable to secure a job, with the age range defined by the United Nations as 15–24 years old. An individual is considered unemployed if they do not have a job but are willing and able to work, actively seeking employment, and fall within the designated “working age” (from 16 years old) for official and statistical measurement. Across the globe, youth unemployment rates are generally higher than adult rates.

8.6 **Youth Not in Education, Employment, or Training (NEET)**

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>4.56</td>
</tr>
</tbody>
</table>

The share of young people who are neither employed, nor in education or training as a percentage of the total number of young individuals in the corresponding age group, differentiated by gender. Young people in education include those attending part-time or full-time education, but do not include those in non-formal education or educational activities of very short duration. Employment is defined in accordance with the OECD/ILO Guidelines, and covers all individuals who have worked for at least one hour in paid employment in the reference week of the survey, or were temporarily absent from such work. Consequently, NEET youth can either be unemployed or inactive, and not participating in education or training. Young people who are not engaged in employment, education or training are at risk of social exclusion, and may experience poverty and a lack of opportunities to improve their economic circumstances.

8.9 **Tourism GDP growth**

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUA</td>
<td>%</td>
<td>9.31</td>
</tr>
</tbody>
</table>

The sum of the value added (at basic prices) generated in all industries as a result of internal tourism consumption, as well as the net taxes on products and imports included within this expenditure. Direct tourism GDP corresponds to the portion of GDP generated by all industries that are directly involved with visitors. This indicator is measured as a percentage of total GDP or a percentage of GVA.
<table>
<thead>
<tr>
<th>8.9</th>
<th><strong>Hospitality industry employment as a proportion of total employment</strong></th>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Municipality %</td>
<td>6.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The proportion of the employed population working within the leisure and hospitality industry.

<table>
<thead>
<tr>
<th>9.1</th>
<th><strong>City transport performance</strong></th>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Municipality Index</td>
<td>97.96</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The indicator of city transport performance measures the accessibility of a population within a 90-minute drive (accessible population) to the total population living within 120 km (nearby population or proximity) of a specific location. A well-performing transport network implies quick accessibility to the entire nearby population. This indicator is available for European cities on the Urban Data Platform using the methodology elaborated by Dijkstra, Poelman, and Ackermans (2018) and the following input data:

- Road network: Trans-tools road network (only Europe's main roads), and local roads simulated using municipality-specific connections. The methodology used is described in Jacobs-Crisioni and Koomen (2017).
- Nearby population: all the population that can be reached within 120 km, travelling over the partially observed, partially simulated road network.

The transport performance indicator has been computed for all two million inhabited square grid cells of 1 Km2 in the European Union and the European Free Trade Association (EFTA). To aggregate this data to a city, the population-weighted average of all the cells within the city was considered.

<table>
<thead>
<tr>
<th>9.3</th>
<th><strong>Employment dependency ratio by sector</strong></th>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Municipality Index</td>
<td>5.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GMA Index</td>
<td>4.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FUA Index</td>
<td>4.68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The vulnerability index based on employment diversity represents the distribution of employment by sector. This index is calculated using data from “Employment jobs by sectors” from Eurostat Urban Audit “Labour Market - cities and greater cities”. The optimal value of the index is around 1, indicating an even distribution of jobs across sectors, while values above six imply that job concentration in a few sectors.

<table>
<thead>
<tr>
<th>9.4</th>
<th><strong>Total industry greenhouse gas emissions per industry GDP</strong></th>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Municipality Kg/Miles de €</td>
<td>14.31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The relation between Greenhouse Gas (GHG) emissions and GDP generated by the industry sector. It is expressed as kg of CO2 equivalents per thousand euros.

<table>
<thead>
<tr>
<th>9.5</th>
<th><strong>Number of European patents with an applicant from the city of Madrid</strong></th>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Municipality n</td>
<td>248</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The total patents filed by the European Union with a Madrid City resident as the applicant.
### 9.5 Number of Spanish patents with an applicant from the city of Madrid

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>x100,000</td>
<td>5.69</td>
</tr>
<tr>
<td>GMA</td>
<td>x100,000</td>
<td>4.53</td>
</tr>
<tr>
<td>FUA</td>
<td>x100,000</td>
<td>3.98</td>
</tr>
</tbody>
</table>

The total patents filed by Spain with a Madrid City resident as the applicant.

### 9.5 Start-up attraction index

A composite index developed by StartupBlink that assesses the quality or level of attractiveness of a city for the startup ecosystem. The index takes into consideration various factors, including the number of startups, coworking spaces, accelerators, and global Influencers. Special algorithms are used to analyze thousands of data points to provide a quantity score, quality score (which considers factors such as monthly visits, authority, customer base, the number of unicorns-startups valued over $1 billion - and other factors), business score (which considers factors such as the technological infrastructure, bureaucracy, red tape, and others), and total score (which is the sum of quantity, quality, and business environment scores). Cities that score high on the Start-up Attraction Index generally have startup-friendly policies and are convenient for doing business.

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Index</td>
<td>14.38</td>
</tr>
</tbody>
</table>

### 10.2 Unemployed persons with disabilities

The proportion of unemployed individuals who are disabled. Disabled people are more likely to face challenges in finding employment. They are considerably more likely than non-disabled individuals to be economically inactive.

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>7.79</td>
</tr>
</tbody>
</table>

### 10.4 Gini coefficient

The Gini Index (Gini Ratio or Gini Coefficient) measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. A Gini coefficient of zero represents perfect equality, where everyone has the same income. A Gini coefficient of one (or 100%) represents maximal inequality, where one person has all the income. The Gini coefficient is an important measure of income inequality in a city (Mandal, 2014).

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Index</td>
<td>38.10</td>
</tr>
<tr>
<td>GMA</td>
<td>Index</td>
<td>32.47</td>
</tr>
<tr>
<td>FUA</td>
<td>Index</td>
<td>31.50</td>
</tr>
</tbody>
</table>

### 10.4 S80/S20 income distribution

The S80/S20 ratio measures the relative disparity in the distribution of a given order of magnitude. For an income distribution, it compares the mass of income held by 20% of the richest individuals to that held by 20% of the poorest.

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>3.40</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>2.79</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>2.75</td>
</tr>
</tbody>
</table>
### 10.7 Foreign-born employment rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>25.76</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>13.57</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>12.80</td>
</tr>
</tbody>
</table>

The foreign-born employment rate refers to the percentage of employed foreign-born individuals aged 15-64 in the total foreign-born population (active and inactive persons) of the same age. Individuals who worked at least one hour or had a job but were absent from work during the reference week are considered employed. This indicator is measured as a percentage of the foreign-born population of the same age and gender.

### 11.1 Housing access index

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Index</td>
<td>7.42</td>
</tr>
<tr>
<td>GMA</td>
<td>Index</td>
<td>5.07</td>
</tr>
</tbody>
</table>

The number of years of salary required to qualify for home ownership. This is determined using data on average house prices and average disposable income per capita.

### 11.1 Percentage of household budget spent on housing, water, electricity, gas and other fuels

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>37.47</td>
</tr>
</tbody>
</table>

The proportion of household budget spent on utilities expenses, including water supply (e.g., hiring and reading of meters, standing charges, etc.), refuse collection and disposal, sewage collection and disposal, and other services related to the dwelling (e.g., co-proprietor charges for caretaking, gardening, stairwell cleaning, heating and lighting, maintenance of lifts and refuse disposal chutes, security services, snow removal and chimney sweeping), as well as electricity, gas, and other fuels used for domestic purposes.

### 11.1 Population living in vulnerable sections

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>1.74</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>1.45</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>1.21</td>
</tr>
</tbody>
</table>

The proportion of the population living in vulnerable census sections in relation to the total population of the territory is calculated. A census tract is considered vulnerable when more than 21% of its population has income per consumption unit below 40% of the national median (vulnerable population) and the proportion of the population below this threshold in the census tract is more than twice the average vulnerable population in the city.

### 11.2 Number of passengers in Municipal Public Transport (EMT)

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>n</td>
<td>296491000.00</td>
</tr>
</tbody>
</table>

The total number of passengers transported by buses belonging to the Municipal Public Transport enterprise of Madrid during a one-year period is recorded.

### 11.2 Number of passengers in Municipal Public Transport (Metro Madrid)

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>n</td>
<td>447822119.00</td>
</tr>
</tbody>
</table>
The total number of passengers transported by Metro of Madrid during a one-year period is recorded.

### 11.4 Cultural index

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Index</td>
<td>27.90</td>
</tr>
</tbody>
</table>

A composite indicator comprised of three sub-indices: Cultural Vibrancy, Creative Economy, and Enabling Environment, with a total of nine dimensions. The methodology used to create this index is available at: [https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor](https://composite-indicators.jrc.ec.europa.eu/cultural-creative-cities-monitor).

### 11.4 Protection and management of Historic-Artistic Heritage per inhabitant

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>€/Hab</td>
<td>3.76</td>
</tr>
</tbody>
</table>

Investment in heritage management and protection per inhabitant. Heritage protection involves the material and constituent properties of items, collections, facilities, and areas defined as heritage. This include efforts to maintain their integrity and keep them intact.

### 11.6 Air quality index

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>71.43</td>
</tr>
</tbody>
</table>

This index categorizes air quality into six categories: good, reasonably good, fair, unfavourable, very unfavourable, and extremely unfavourable. Each station is assigned the worst category in terms of air quality for any of the pollutants considered for estimation, whether measured or derived from CAMS models. The pollutants considered in the index include Suspended Particulate Matter (PM10), Suspended Particulate Matter (PM2.5), Tropospheric Ozone (O3), Nitrogen Dioxide (NO2), and Sulphur Dioxide (SO2). For a detailed methodology, please refer to this link: [https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/atmosfera-y-calidad-del-aire/resolucion_02092020_modificacion_ica_tcm30-511596.pdf](https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/atmosfera-y-calidad-del-aire/resolucion_02092020_modificacion_ica_tcm30-511596.pdf).

### 11.6 Urban domestic waste per capita

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Kg/Hab</td>
<td>342.58</td>
</tr>
</tbody>
</table>

The amount of household waste and waste similar in nature and composition to household waste, consisting of everyday items that are discarded by the public, generated per inhabitant.

### 11.7 Green area per capita

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>m²/Hab</td>
<td>18.71</td>
</tr>
</tbody>
</table>

Green areas are defined as public and private areas that have flora such as plants, trees, and grass (e.g., forests, parks, gardens). These areas also help compensate for CO2 emissions as they contribute to environmental sustainability. 

**Green area per capita** = \(\frac{\text{Total green area within the city}}{\text{City population}}\)

### 11.b Design volume (m³) of installed Sustainable Urban Drainage Systems (SUDS)

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>m³</td>
<td>40 000</td>
</tr>
</tbody>
</table>

Sustainable Urban Drainage Systems (SUDS) are permeable, preferably vegetated, surface elements that form part of the urban-hydrological-landscape structure and precede the sewerage system. Their purpose is to filter, retain, transport, accumulate, reuse, and infiltrate rainwater into the ground without degrading it and even restoring the quality of the water they manage.

<table>
<thead>
<tr>
<th>12.3</th>
<th>Share of non-recovered organic waste in the total input of goods (Mercamadrid)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>Unit</td>
</tr>
<tr>
<td>Municipality</td>
<td>%</td>
</tr>
</tbody>
</table>

The percentage of organic waste generated by Mercamadrid that cannot be treated for reuse or repurposing.

<table>
<thead>
<tr>
<th>12.5</th>
<th>Recycling rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>Unit</td>
</tr>
<tr>
<td>Municipality</td>
<td>%</td>
</tr>
</tbody>
</table>

Recycling refers to the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. The recycling rate is the percentage of municipal solid waste (MSW) recycled and composted divided by the total amount of MSW generated, including waste that is landfilled or incinerated. Material that is reused, avoided, or converted to energy is not included in the recycling rate.

<table>
<thead>
<tr>
<th>12.6</th>
<th>Number of organisations with Eco-Management and Audit Scheme (EMAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>Unit</td>
</tr>
<tr>
<td>Municipality</td>
<td>n</td>
</tr>
<tr>
<td>GMA</td>
<td>n</td>
</tr>
</tbody>
</table>

Eco-Management and Audit Scheme (EMAS) is a voluntary management tool for companies and organisations to assess, improve, and publicise their environmental performance. The EMAS register is an online database hosted by the European Commission that lists all EMAS-registered organisations and sites. Only those organisations and sites that have achieved EMAS registration are listed in the register. To qualify for EMAS registration, organisations must comply with the following process:

1. Carry out an assessment that considers all environmental aspects related to the organisation's activity, including procedures, products, services, and compliance with applicable environmental legislation and procedures or good environmental practices.
2. Depending on the results of the assessment, establish an effective management system that focuses on compliance with the environmental policy defined by the organisation's management. This includes responsibilities, objectives, operational procedures, staff training needs, and effective communication systems, which must be integrated into the organisation's overall management system.
3. Conduct an environmental audit to ensure that the management system, previously defined, is adapted and meets the requirements of the environmental policy and objectives defined by the organisation, and that it is structured in accordance with the EMAS Regulation.
4. Make a public statement of the organisation's environmental performance that reflects the fulfillment of its environmental objectives and the future actions that will allow it to continue the process of continuous environmental improvement.
### 12.7 Proportion of municipal contracts incorporating social or environmental criteria

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>72.00</td>
</tr>
</tbody>
</table>

The percentage of municipal contracts issued that include clauses related to social or environmental obligations.

### 12.5 Number of people made aware by projects co-financed by the Madrid City Council in the field of Education for Sustainable Development and Global Citizenship

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>N (cumulative)</td>
<td>759879</td>
</tr>
</tbody>
</table>

The number of people who have been made aware of sustainable development and responsible, informed consumption models through projects co-financed by the Madrid City Council in the field of Education for Sustainable Development and Global Citizenship.

### 13.1 Persons affected by disasters

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>n</td>
<td>5.00</td>
</tr>
</tbody>
</table>

The number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 people. Affected persons include those with health problems, displaced individuals, and those who have suffered direct damage to their livelihoods, economic, social, cultural, and environmental assets. The dataset is composed of various sources, such as the United Nations, governmental and non-governmental agencies, insurance companies, research institutes, and media agencies. The data are filtered and harmonised by the Centre for Research on the Epidemiology of Disasters (CRED), collected in the Emergency Events Database (EM-DAT), and provided at the municipal level.

### 13.2 Total greenhouse gas emissions per capita

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>t/Hab</td>
<td>3.04</td>
</tr>
<tr>
<td>GMA</td>
<td>t/Hab</td>
<td>2.15</td>
</tr>
<tr>
<td>FUA</td>
<td>t/Hab</td>
<td>5.40</td>
</tr>
</tbody>
</table>

This indicator represents the tons of CO2 emissions per inhabitant. The data source used calculates CO2 emissions using OpenStreetMap and breaks them down into different emission sources, including airports, buildings, industrial facilities, farms, vehicles, ports, refineries, and train stations.
## 15.1 City tree cover

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>ha</td>
<td>623.96</td>
</tr>
</tbody>
</table>

This indicator measures the area in cities covered by tree crowns as seen from above, using remote sensing techniques based on satellite imagery. For this indicator, only municipally managed trees are considered. It also serves as a proxy for a city's green space and the physical presence of vegetation within city neighborhoods.

## 15.2 Change in tree cover

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>1.62</td>
</tr>
</tbody>
</table>

This indicator refers to the variation in tree cover within a city between the reference year of 2015 and the latest available information. Land cover and land use changes are the primary contributors to terrestrial biodiversity loss (CBD 2010). Detrimental changes in land cover lead to habitat fragmentation, loss of natural habitats, and a decline in the populations of many species, resulting in reduced biodiversity. Against this background, changes in land cover were proposed as an OECD Green Growth headline indicator in 2012. Deleterious changes in land cover due to human activities, such as converting land from a more natural state to a more artificial state, typically reflect more intense uses of land, degrade natural habitats and ecosystems, affect biodiversity, and erode natural capital.

## 15.1 Number of Monk parakeets registered in the municipality

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>N</td>
<td>11100</td>
</tr>
</tbody>
</table>

The adaptation of the Monk or grey-breasted parakeet to the different habitats and their high reproductive success lead to an annual population growth trend that is of great concern. This is especially worrying because, in Spain, it is considered an Invasive Alien Species (IAS) according to Law 42/2007 on Natural Heritage and Biodiversity and Royal Decree 630/2013, which regulates the Spanish catalogue of IAS. These parakeets have a detrimental effect on biodiversity due to competition for food with other species, predation, habitat modification, and damage to vegetation used for nesting, including the stems and tender shoots. In response to these circumstances, the Madrid City Council implemented a comprehensive plan in 2019 to reduce and control the population of these species in the capital. This plan includes a range of actions in collaboration with the Spanish Ornithological Society SEO/Birdlife, such as ethical slaughter and sterilisation of eggs.

## 16.1 Crime rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>x 1.000</td>
<td>61.36</td>
</tr>
<tr>
<td>GMA</td>
<td>x 1.000</td>
<td>43.41</td>
</tr>
</tbody>
</table>

The number of crimes and misdemeanors registered in a year per thousand inhabitants.

## 16.1 Perception of safety in the city

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>67.6</td>
</tr>
</tbody>
</table>

The indicator is based on the answers obtained in the Quality of Life and Satisfaction with Public Services survey conducted by the Madrid City Council. It measures the perception of safety in the neighbourhood and in the city of Madrid on a scale.
The number of minors who are victims of domestic violence in the Madrid region. Family and domestic violence are abusive behaviours that involve one individual gaining power over another. Child abuse includes emotional, sexual, physical, or neglectful behaviour towards a child under 18 by a parent, custodian, or caregiver, resulting in potential harm, harm, or a threat of harm.

The RUMI is a state-wide registry that provides data on confirmed and unconfirmed reports of abuse and on the modalities of abuse in each Autonomous Community. This registry collects the statistics corresponding to cases of intra-family abuse.

The protection of children is the purpose of any action or program that has among its objectives the detection and notification of situations of child abuse. Improving the effectiveness of the protection system implies a continuous adaptation of the intervention procedures, establishing agile action protocols for the professionals involved.

This Unified Registry will allow an estimation of the incidence of risk, the study of profiles and other variables that can be analysed to design effective prevention and protection programs for children.

In the case of the Comunidad de Madrid is the Protection Area of the Madrid Institute for the Family and Minors in charge of collecting the data and completing the registry, based on the analysis of all the lack of protection files opened at the Institute.

DAM index of economic-financial transparency prepared by Dyntra at the municipal level.

In any case, these indexes do not attempt by any means to measure the level of corruption or the conduct of people who may belong to administrative or politically run institutions, as they are persons unknown of TI-Spain or bearing no personal relationship. The evaluation indexes of transparency bear therefore, institutional character, and an informative assessment is made of each one of the public entities, which for TI-Spain are logically above the people who have or had political or administrative ties with these entities.

Expenditure of the budget for Development Cooperation and Aid projects
### 17.1 Strength and autonomy of the municipal institution in budgetary terms

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>59.09</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>56.67</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>54.92</td>
</tr>
</tbody>
</table>

Budgetary ratio of own resources’ revenue to total revenue. Direct taxes, indirect taxes, property taxes, fees, and others are counted as own revenue. Based on budget execution data at the local level.

### 17.2 Proportion of the unconsolidated municipal budget allocated to public policy on global citizenship and international development cooperation

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>0.22</td>
</tr>
</tbody>
</table>

This budgetary effort indicator measures the proportion of the non-consolidated municipal budget allocated to global citizenship and international cooperation. The municipal budgets comprise both the budget of the City Council and those of the municipal public companies and autonomous bodies. The aggregation of these budgets forms the General Budget (non-consolidated). The consolidated budget, on the other hand, results from eliminating all those operations conducted between municipal entities. For example, transfers that the City Council grants to companies and organisations must be deducted from both the expenses of the City Council and the income of the entity that receives the transfer.

### 17.4 Debt per GDP

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>1.11</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>2.90</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>2.25</td>
</tr>
</tbody>
</table>

The general government debt-to-GDP ratio is an important indicator for assessing the sustainability of government finance. This ratio measures the gross debt of the general government as a percentage of GDP. To calculate this ratio, one must sum the following liability categories, where applicable: currency and deposits, debt securities, loans, insurance, pensions and standardised guarantee schemes, and other accounts payable. Changes in government debt over time primarily reflect the impact of past government deficits.
### Debt per inhabitant

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>€/hab</td>
<td>508.11</td>
</tr>
<tr>
<td>GMA</td>
<td>€/hab</td>
<td>522.54</td>
</tr>
<tr>
<td>FUA</td>
<td>€/hab</td>
<td>394.95</td>
</tr>
</tbody>
</table>

Public debt serves as a crucial measure can contribute to higher economic growth and enhance the capacity to service and repay both external and domestic debt. Moreover, it enables governments to achieve their social and developmental goals. The debt per inhabitant is a metric used to gauge the level of debt that a government has per citizen. This calculation involves adding short-term debt and long-term debt, subtracting cash and other liquid assets, and then dividing the result by the population.

### White Areas

<table>
<thead>
<tr>
<th>Area</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>%</td>
<td>0.01</td>
</tr>
<tr>
<td>GMA</td>
<td>%</td>
<td>0.13</td>
</tr>
<tr>
<td>FUA</td>
<td>%</td>
<td>2.27</td>
</tr>
</tbody>
</table>

According to the Spanish regulations, NGA white areas are defined as regions without coverage of next-generation broadband networks or where no operators have credible investment plans to provide such coverage within three years. In contrast, NGA grey areas are defined as regions with only one operator planning to provide next-generation broadband coverage within three years. Updated to 2022, a shp format layer of white and grey areas can be downloaded on this website: [https://avancedigital.mineco.gob.es/banda-ancha/zonas-blancas-NGA/Paginas/2022.aspx](https://avancedigital.mineco.gob.es/banda-ancha/zonas-blancas-NGA/Paginas/2022.aspx)

The information provided allows for the selection of white and grey NGA areas within each census district or section, making it possible to identify dwellings that intersect with these areas. By doing so, the proportion of dwellings within white NGA areas can be determined in relation to the total number of dwellings in the municipality.
## ANNEX 2. DATA SOURCES

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 At risk of poverty rate %</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>1.3 At risk of poverty rate (Over 65 years) %</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>1.3 At risk of poverty rate (Under 18 years) %</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>1.3 Number of families receiving Regional Minimum Income (RMI) or income guarantee programmes</td>
<td>n</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>1.4 Percentage of individuals who fall behind in their utility bill payments</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>1.4 Percentage of the population unable to maintain a comfortable temperature at home</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>2.1 Percentage of the population who cannot afford a meal of meat, poultry, or fish at least every second day</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>2.2 Share of child population (aged between 2 and 17) with a Body Mass Index (BMI) of overweight or obesity</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>2.2 Share of population (aged over 18) with a Body Mass Index (BMI) of overweight or obesity</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>2.3 Tons of proximity products commercialized in Mercamadrid</td>
<td>Ton</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>3.4 Life expectancy at birth Years</td>
<td></td>
<td>INE (Urban Audit)</td>
</tr>
<tr>
<td>3.4 Premature mortality rate x10,000</td>
<td></td>
<td>Instituto de Estadística de la Comunidad de Madrid</td>
</tr>
<tr>
<td>3.5 Harmful alcohol consumption per capita (15 years of age and older) %</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>3.6 Traffic fatalities x100,000</td>
<td></td>
<td>DGT</td>
</tr>
<tr>
<td>3.7 Percentage of consultations on Sexually Transmitted Infections (STIs) in Medical Specialty Centres</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>3.7 Percentage of new family planning consultations within the sexual and reproductive health program</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>3.8 Population with household health expenditures greater than 10% of total household expenditure or income</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>Indicator</td>
<td>Unit</td>
<td>Source</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3.8 Population with household health expenditures greater than 25% of total household expenditure or income</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>4.1 Uneducated young persons</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>4.2 Children 0-4 in daycare or school</td>
<td>x1,000</td>
<td>INE (Urban Audit)</td>
</tr>
<tr>
<td>4.3 Proportion of the population aged 25-64 qualified with the highest level of education</td>
<td>%</td>
<td>INE (Urban Audit)</td>
</tr>
<tr>
<td>4.7 Number of beneficiaries of formal education (primary, secondary and university education) trained in projects co-financed by the Madrid City Council on Education for Sustainable Development and Global Citizenship</td>
<td>n</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>5.1 Difference between at risk of poverty rate by gender</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>5.2 Number of fatal victims of gender-based violence in the city of Madrid</td>
<td>n</td>
<td>Instituto de Estadística de la Comunidad de Madrid</td>
</tr>
<tr>
<td>5.2 Crimes of gender-based violence</td>
<td>n</td>
<td>MIR</td>
</tr>
<tr>
<td>5.4 Ratio of domestic and care work</td>
<td>Ratio</td>
<td>INE</td>
</tr>
<tr>
<td>5.5 Proportion of seats held by women in sub-national/local governments</td>
<td>%</td>
<td>MIR</td>
</tr>
<tr>
<td>5.5 Ratio of men to women in management positions</td>
<td>Ratio</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>6.3 Percentage of wastewater treated in nutrient removal and advanced tertiary filtration and disinfection facilities in Madrid</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>6.4 Domestic water consumption per capita</td>
<td>L/inh./day</td>
<td>Canal de Isabel II Gestión, S.A.</td>
</tr>
<tr>
<td>6.4 Total water consumption per capita</td>
<td>L/inh./day</td>
<td>Canal de Isabel II Gestión, S.A.</td>
</tr>
<tr>
<td>6.6 Kilometres of restored watercourses on urban land</td>
<td>km</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>7.2 Percentage of total electrical energy consumed that is generated by municipal photo-voltaic (PV) installations</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>7.2 Renewable energy share of energy consumed</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>Indicator</td>
<td>Unit</td>
<td>Source</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7.3 Energy intensity rate</td>
<td>tep/m€</td>
<td>Instituto de Estadística de la Comunidad de Madrid</td>
</tr>
<tr>
<td>8.1 Gross Domestic Product annual growth rate</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>8.2 Productivity ratio</td>
<td>Ratio</td>
<td>Instituto de Estadística de la Comunidad de Madrid</td>
</tr>
<tr>
<td>8.3 Small and Medium Enterprises per 1,000 inhabitants</td>
<td>x 1,000</td>
<td>Instituto de Estadística de la Comunidad de Madrid</td>
</tr>
<tr>
<td>8.4 Percentage of public contracts with fair trade and sustainable consumption and production clauses out of total municipal contracting</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>8.5 Employment rate</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>8.5 Female employment rate</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>8.5 Female unemployment rate gap</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>8.5 Senior employment rate</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>8.5 Unemployment rate</td>
<td>%</td>
<td>INE (Urban Audit)</td>
</tr>
<tr>
<td>8.5 Youth unemployment rate</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>8.6 Youth Not in Education, Employment, or Training (NEET)</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>8.9 Hospitality industry employment as a proportion of total employment</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>8.9 Tourism GDP growth</td>
<td>%</td>
<td>Instituto de Estadística de la Comunidad de Madrid</td>
</tr>
<tr>
<td>9.1 City Transport Performance</td>
<td>Index</td>
<td>JRC</td>
</tr>
<tr>
<td>9.3 Employment dependency ratio by sector</td>
<td>Index</td>
<td>EUROSTAT</td>
</tr>
<tr>
<td>9.4 Total industry greenhouse gas emissions per industry GDP</td>
<td>kg/T€</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>9.5 Number of European patents with an applicant from the city of Madrid</td>
<td>n</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>9.5 Number of National patents with an applicant from the city of Madrid</td>
<td>x 100,000</td>
<td>OEPNM</td>
</tr>
<tr>
<td>9.5 Start-up attraction Index</td>
<td>Index</td>
<td>StartupBlink</td>
</tr>
<tr>
<td>10.2 Unemployed persons with disabilities</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>10.4 Gini coefficient</td>
<td>Index</td>
<td>INE</td>
</tr>
<tr>
<td>10.4 S80/S20 income distribution</td>
<td>Index</td>
<td>INE</td>
</tr>
<tr>
<td>10.7 Foreign-born employment rate</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>Indicator</td>
<td>Unit</td>
<td>Source</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>11.1 Housing Access Index</td>
<td>Index</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>11.1 Percentage of the household budget spent on housing, water, electricity, gas, and other fuels</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>11.1 Population living in vulnerable sections</td>
<td>%</td>
<td>INE</td>
</tr>
<tr>
<td>11.2 Number of passengers in Municipal Public Transport (EMT)</td>
<td>n</td>
<td>EMT</td>
</tr>
<tr>
<td>11.2 Number of passengers in Municipal Public Transport (Metro Madrid)</td>
<td>n</td>
<td>Metro de Madrid, S.A.</td>
</tr>
<tr>
<td>11.4 Cultural Index</td>
<td>Index</td>
<td>JRC</td>
</tr>
<tr>
<td>11.4 Protection and management of the Historic-Artistic Heritage per inhabitant</td>
<td>€/inh.</td>
<td>MHFP</td>
</tr>
<tr>
<td>11.6 Air Quality Index</td>
<td>%</td>
<td>MITECO</td>
</tr>
<tr>
<td>11.6 Urban Domestic Waste per capita</td>
<td>kg/inh.</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>11.7 Green area per capita</td>
<td>m²/ inh.</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>11.7.b Design volume (m3) of installed Sustainable Urban Drainage Systems (SUDS)</td>
<td>m3</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>12.3 Share of non-recovered organic waste in the total input of goods (Mercamadrid)</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>12.5 Recycling rate</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>12.6 Number of Organisations with Eco-Management and Audit Scheme (EMAS)</td>
<td>n</td>
<td>EMAS Register</td>
</tr>
<tr>
<td>12.7 Proportion of municipal contracts incorporating social or environmental criteria</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>12.8 Proportion of the population with access to an urban vegetable garden within a 10-minute walk</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>12.8 Number of people made aware by projects co-financed by the Madrid City Council in the field of Education for Sustainable Development and Global Citizenship</td>
<td>n</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>13.1 Persons Affected by Disasters</td>
<td>n</td>
<td>EM-DAT</td>
</tr>
<tr>
<td>13.2 Total greenhouse gas emissions per capita</td>
<td>t/ inh.</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>15.1 City tree cover</td>
<td>ha</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>15.2 Change in tree cover</td>
<td>%</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>Indicator</td>
<td>Unit</td>
<td>Source</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>15.8 Number of Monk parakeets registered in the municipality</td>
<td>n</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>16.1 Crime Rate</td>
<td>x 1,000</td>
<td>MIR</td>
</tr>
<tr>
<td>16.1 Perception of Safety in the City</td>
<td>Index</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>16.1 Population under 18 Years of Age Who Are Victims of Domestic Violence</td>
<td>n</td>
<td>Instituto de Estadística de la Comunidad de Madrid</td>
</tr>
<tr>
<td>16.1 Notifications of Serious Child Abuse</td>
<td>x 100,000 inh. under 18</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>16.6 Municipal Transparency Index</td>
<td>Index</td>
<td>DYNTRA</td>
</tr>
<tr>
<td>16.7 Participatory Budgeting</td>
<td>€/inh.</td>
<td>Madrid Municipality</td>
</tr>
<tr>
<td>17.1 Strength and Autonomy of the Municipal Institution in Budgetary Terms</td>
<td>%</td>
<td>MHFP</td>
</tr>
<tr>
<td>17.2 Proportion of the Unconsolidated Municipal Budget Allocated to Public Policy on Global Citizenship and international Development Cooperation</td>
<td>%</td>
<td>Localisation strategy for the SDG goals of the 2030 Agenda in the city of Madrid</td>
</tr>
<tr>
<td>17.4 Debt per GDP</td>
<td>%</td>
<td>MHFP</td>
</tr>
<tr>
<td>17.4 Debt per Inhabitant</td>
<td>€/inh.</td>
<td>MHFP</td>
</tr>
<tr>
<td>17.8 White Areas</td>
<td>%</td>
<td>MINECO</td>
</tr>
</tbody>
</table>
MADRID