Branding Madrid as a Sustainable City: The role of Mega Projects

Laura Juarez¹, Theodore Metaxas^{2*} and Gabriel Ferrer Olmos³

Abstract:

The paper awards the role of mega project as core element of building a branding strategy for city image promotion. The studied area is the city of Madrid that is promoted as a 'sustainable city' using as a main axis the Madrid Nuevo Norte Project. The study proposes a conceptual combined branding corporative strategy through the analysis of two particular models. The first one is the branding model of 4Rs and the second the marketing model of 8Ps. The study supports that the proposed branding strategy creates the appropriate framework in order the city of Madrid to increase the value of its image by linking the MNN project and being considered by consumers, visitors, companies and other stakeholders as the new benchmark for a sustainable European city.

Keywords: Mega Project; Urban sustainable development; city branding; conceptual model; Madrid

1. Introduction

It is obvious and well-known that since de-industrialisation period, territories and in particular the cities, change or improve their images in order to remain powerful and also to become attractive and competitive in the new internationalized environment (Scott and Storper, 2003; Turok, and Bailey, 2004). The last 30 years, many european, but not only, cities performed various techniques, such us, strategic planning, place marketing and branding fostering their economic development (i.e. Kavaratzis and Ashworth, 2005; Anholt, 2008; Metaxas, 2009). In place marketing and place branding there are different methodological approaches, such as the model of 8Ps (Morrison, 2010), the 4R's model (Aitken and Campelo, 2011) etc. Following a very recent study of Ginesta and San Eugenio (2021) the concepts of brand and territory have appeared in an inconsistent and confusing way in the different investigations academic or institutional. It is about a transformation of the concept of "place or city marketing" that was evolving thanks to the work of different researchers. The two concepts describe the need for territories to find a suitable position to compete in global markets from a mainly economic approach. Although there is no prevalent methodological standard, it is expected of a place-branding project to be able to answer three basic questions (Needham et. al., 1999): 1) Where are we? (Strategic Analysis), 2) Where do we want to go? (Strategic Planning), 3) How shall we get there? (Implementation Strategies) (Govers and Go, 2009; Metaxas and Lalenis, 2006; Kavaratzis, 2008). It is essential to mention that place branding is not something random but a strategic planning procedure. Table 1 presents the relationship between city development and

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strategic planning, connecting this with some, main key strategies that includes mainly landscape transformation and infrastructure projects.

 Table 1: City development via Strategic Planning (focused on mega infrastructure projects)

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Source: Gavriilidis and Metaxas (2017)

In this study place branding is related with the importance of urban mega project significance and how this relationship supports the image of Madrid as a sustainable city'.

In order to satisfy this, the study proposes a conceptual model based on the combining use of two different models, the technocratic model of 8Ps by Morrison (2010) and the participatory model of 4Rs by Aitken and Campelo (2011).

The structure of the paper is the following: Section 2 presents the literature review regarding the concept of place/city branding, while the third emphasizes to sustainable urban development. The fourth and fifth sections refer to the relationship between megaprojects with sustainability and city branding. The sixth section refers extensively to the case study of Madrid Nuevo Norte Project, while the seventh answer to the research questions. The eighth section presents the proposed conceptual model and the last section concludes.

2. Place/ City branding

The fight for the global economy has marked an important change in the management of the place branding and especially for the cities. Since the decade of '80s, several studies, support that, communicating a brand image to a target segment has long been regarded as an important marketing activity in business environment (i.e. Reynolds and Gutman, 1984; Park et al., 1986). However, regarding cities, the concept of branding is quite new, as far as its performance is concerned and how it is related to the effective implementation of place marketing actions (Westwood et al., 1999; Watkins and Herbert, 2003; Kavaratzis, 2004; Metaxas, 2010; Riza et al., 2011; Gilboa et al., 2015; Wonh and Liu, 2017; Chan et al., 2021). Cities have been immersed in urban transformations that have led them to diversify their economic base, create new infrastructures and regenerate and revitalize their area in order to become attractive but particularly sustainable, including the citizen in a relevant role for this change, promising together with new marketing actions a revaluation of the city brand (Ruiz and Aramendia, 2017; Rehan, 2014; Metaxas, 2009; Ashworth and Kavaratzis, 2009; Seisdedos, 2007). This circumstance has expanded globally, which has produced an increase in competition between cities. The objectives pursued with this precept are for the city to provide greater satisfaction to its citizens, and at the same time become an important focus of attraction in the markets.

The place branding concept has been established in a significant way, San Eugenio (2013]), but its definition seems to have not been unanimous by academics despite the increase in studies that have occurred in this area (Pedeliento and Kavaratzis, 2019). Mommaas (2004) supports that place branding "is a strategy through which cities acquire an image, a cultural significance which can ideally serve as a source of added symbolic and economic value', while Anholt (2010), argued that much of the literature that focuses on the place branding refers to the definitions of the place branding and its potential. In general, the concepts of brand and territory have appeared in an inconsistent and confusing way in the different investigations academic or institutional. It is about a transformation of the concept of "place or city marketing" that was evolving thanks to the work of different researchers. The two concepts describe the need for territories to find a suitable position to compete in global markets from a mainly economic approach. In more recent approaches, the definition of a place brand is to support its development by creating and maintaining a positive image and reputation of the place over time (Gupta et al., 2018). Other authors believe that an improvement in the management of the place branding results in an

increase in competitiveness (Rojas-Méndez et al., 2015). In this sense, place branding aims to create a strategic brand identity based on identity and sell it in the market through image optimization. Therefore, the construction of a positive image of the place to be represented opens the possibility of accessing market opportunities. Opportunities that are reduced or canceled, without proper image and brand management (Ginesta and de San Eugenio, 2021). The image of any region finds it difficult to present itself clearly and simply due to the extensive set of political, cultural and industrial activities. It is very complex to sell a geographic area due to the enormous number of variables that compose it and reduce them to a single image promise. For this reason, and as explained by Metaxas (2003), the image linked to certain places will have a complex character and with multiple facets and several distinctive characteristics. Govers & Go's research (2009) has been fundamental to understand the brand applied to the territory, and defines it as a strategic asset that works at all levels of the organization.

Therefore, the place branding has to be used empirically and strategically, giving value to specific spaces by applying continuous improvement processes in their image that is related to a new form of territory management, through which the brands of the countries, regions and cities manage to increase their national and international image (Lucarelli, 2018). From their point of view, Piñeiro-Naval et al., (2017). Support that the objective of place branding is to obtain a positive position in the international market through the projection of an image that fits with the reality of the place represented, leaving aside stereotypes that show an unfair vision.

3. Sustainable Urban development in brief

The last decades, and especially after 2000, the concepts of *Sustainable Urban Development* or *Urban/ City Sustainability* recieve an extensive research attention (i.e. Alberti, 1996; Maclaren, 1996; Finco and Nijkamp, 2001; Liu et al., 2014; Mensah, 2019). Evers (2018) relates the concept to the organizing principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. In addition, the planning of sustainable development should take into account the analysis of local economic forces, the environmental conditions locally and finally, cultural and social distinctive characteristics (Annan, 2002; Bagheri and Hjorth, 2007; Conroy and Berke, 2004; Kain and Soderberg, 2008). All these studies and many others, award three core dimensions of sustainable development (Figure 1) in long-term horizon directly connected with urban environment, the economic dimension, environmental and social (Dempsey et al., 2011; Dahri and Omri, 2018; Wanamaker, 2018; Purvis et al., 2019).



Figure 1: The three dimensions of Sustainable Development and relationship between economic, social and environmental dimensions Source: Wanamaker [55]

4. Mega projects and sustainability

Following Sklair (2005), megaprojects act as a prime strategy for the transformation of urban space, whilst their spatial and functional similarity reflects the homogenizing effect of global forces. They also involve international participants with a variety of cultural differences, backgrounds, political systems, and languages (Shore and Cross, 2005). All megaprojects require the cooperation of the public and private sector. Recent studies prove that the coordination of best governance practices between the public sector and other agents such as private organizations represents a significant improvement in the overall performance of megaprojects (Shaker, 2019). The United Nations has set 17 Sustainable Development Goals (SDGs) to be achieved by 2030. However, there are structural inefficiencies, especially lack of communication or poor coordination between the actors involved (government, public entities, private organizations), which make it difficult to achieve these goals. One of the main obstacles to achieving the goals is that the 17 objectives of the United Nations are treated in individually rather than jointly, since many of them are interrelated and generate synergies when treated together.

The complexity and the size of the mega projects make them inherently tied to the logic of urban growth and development, which leads to wealth creation, prosperity, and urban qualitative transformation (del Cerro Santamaria, 2019). However, mega projects

often related with negative impacts, like the territorial tensions produced in contexts of extreme social inequalities, irregular distribution of social and civic facilities, insufficient green areas, limited access to water, inefficient and unsustainable public transport solutions. All these type of issues due to the incorrect implementation of urban development policies has been widely studied and documented in mega-cities such as Cape Town, Durban, Delhi, and Lima (Kennedy, 2015). Following Pitsis et al. (2018), in a period where resources are limited and environmental concerns dominate, megaprojects are also seen as destructive forces of doom and massive failure that question their sustainability. For example, the resistance of the native community to the megaproject of housing N2 Gateway in the informal settlement Joe Slovo in the city of Langa, Cape Town, materialized through legal actions and public protests over the design of the pre-project phase that provoked forced evictions and later relocations of resident families (Jordhus-Lier, 2015).

The international experience is rich in successful and failed examples of megaprojects. Shenhar and Holzmann (2017) state that the key points for the success of megaprojects are three: clear strategic vision, total alignment, and adapting to complexity. On the other side, various megaprojects have failed due to extensive overruns, misunderstanding of expectations, or both. The authors evaluate the success or failure of megaprojects grading and calibrating 4 variables: Efficiency, Customer / Use Impact, Financial / Business Success and Impact on Society. Through this methodology, they determined that the megaprojects London 2012, Olympic Park and the Guggenheim Museum Bilbao were both a success in the 4 variables, while the "Three Gorges Dam" (world largest hydroelectric dam) was a failure in the variable "Efficiency "and a partial success in" Impact on society ". In this case, several studies indicate through empirical results that megaproject's social responsibility "has positive results in improving the sustainability of the construction industry", as long as those involved in the megaproject comply with basic guidelines and are subject to be monitored by the media to reduce any deviation or unethical behavior. That, guarantees the sustainability of the construction industry and highlights the need and social demand to develop megaprojects from an inexcusable perspective of urban sustainability (Ma et al, 2020).

5. Mega Projects and city branding

The international experience provides many cases where mega projects support the city branding process. For instance, Ninan et al. (2019), seek to understand how a metro rail megaproject in India manages their project community through visible and invisible strategies. Aly (2019) explores how city branding strategies position NEOM (a 'new city' in Saudi Arabia) regionally and globally, while Xuefei (2008) examines the role of transnational architectural production in mega project developments in Beijing. Dogan and Stupar (2017) award the importance of three megaprojects of urban transformation in Istanbul shaping and branding a 'new-city' in the frame of 'Vision 2023'. In addition, Girma and Singh (2019) identify the impact of megaprojects on a destination branding focusing on Ethiopia, while Takouleu (2020) awards the importance of Green City Project for Akon city in Senegal (Figure 2). Finally, Salom et al. (2019) present a critical overview of the impact the Valencia's urban policy (mainly, large projects and mega events) has had in recent years on its stated objectives: tourism development and promoting the city's image.



Figure 2: Green City Project for Akon city in Senegal Source: Afrik21 [74]

6. The Nuevo Norte Project of Madrid

6.1 A brief history

Along the lines existing in the management of sustainable development, the cities and governments are increasingly aware of the effort needed to be play to reach a consistent ratio and more balanced between natural resources and economic development and the social well – being (Romero-Vargas et al., 2020). The capital of Spain is immersed in one of its greatest challenges: to achieve a sustainable and efficient urbanism focused on the environment. Sustainability is a complex issue that implies willingness on the part of state institutions to bring about efficient changes in their production and consumption patterns (Linares-García and Vásquez-Santos, 2018), thus becoming a primary objective for which, more and more cities worldwide decide to invest. Madrid Nuevo Norte is one of the largest European projects in urban transformation (Metaxas et al., 2021), which will include new office buildings, homes, green areas and public spaces that will occupy around 75% of the total area of the plan in its set (Figure 3). The company behind the project information and promotion is called Castellana Distrito Norte.



Figure 3: Madrid Nuevo Norte Project Source: <u>https://distritocastellananorte.com/project/?lang=en</u>

The main location of the project is in the Chamartín station that will be equipped with a transport interchange that includes **urban and regional transportation**, long-distance and high-speed trains, which will make it the point most im-portant high-speed in Spain. It will also be equipped with transportation to the Adolfo Suárez airport. Given the commitment acquired with the environment, around half a million square meters will be allocated to green areas, in which part of them are annexed to existing public parks to create a network of interconnected green are-as. These new natural spaces will constitute a green axis and it would extend from the area of the Chamartin station to the Monte de El Pardo, one of the ecological reference area of the city of Madrid, this track goes through the new Business Center and the Malmea, Tres Olivos and Las Tablas areas. Therefore, a person could walk from Chamartín to El Pardo only passing through these green areas.

It is also planned the integration of three large office towers within the large green areas together with commercial areas (DCN, 2021). In addition, the construction of 10,000 homes is expected, 20% of which will be used with social housing purpos-es. The construction and subsequent use of all these buildings will be based on achiev-ing the greatest optimization of energy consumption.

6.2 Linkages with Sustainability goals

From the beginning, the MNN project has made sustainability its main value, focused on urban regeneration, appearing as a unique opportunity in Europe to implement large - scale pioneering measures of urban sustainability, thus becoming Madrid a leader in the social field, economic and environmental (DCN, 2021). For this reason and to achieve its sustainability strategy, it has followed the 17 UN sustainable development goals, which are part of the 2030 Agenda, the MNN project is based mainly on 12 of them (DCN, 2021). Within the framework of these 12 objectives, special emphasis must be placed on the four where urban design can be contributed to the greatest extent:

Sustainable development goal 6. Clean water and sanitation

Sustainable development goal 7. Affordable and clean energy

Sustainable development goal 11. Sustainable cities and communities

Sustainable development goal 13. Combating the climate change.

Below, they are indicated how the project has been adapted to all the objectives that have served as a basis in its elaboration:

Sustainable development goal # 3: Health and welfare. Health and well-being are magnitudes that can act as indicators of the levels of sustainable development. Health is the reflection of living conditions at an economic and social level. A healthy society allows for higher labor productivity and income, which increases the possibilities for more inclusive and sustainable growth (de Andrade et al., 2015). Starting from this premise, the project draws us a city with a bioclimatic design in which the citizen can enjoy spaces such as squares and streets that protect from the sun and the wind. The aim is to support the use of areas that generate socialization and activities between people. To achieve this objective, the focus has been placed on mobility both on walk and in the use of bicycles to promote healthy daily exercise, which will reduce sedentary lifestyle, pollution and environmental noise. Responsibility in the management of public transport will also promote the previous mentioned aspects that have a significant impact on health and wellbeing.

Sustainable development goal # 5: Gender equality. This objective shows the responsibility of the government of Spain to promote and promote equality in urban development, which means the creation of a qualitative and qualitative frame of reference in gender equality policies in urban planning in the city (Sánchez-de Madariaga and Novella - Abril, 2020). For this reason, a report has been developed which includes the gender situation in Spain adapted to the urban environment in order to apply different initiatives in terms of safety and minimize gender gaps in terms of mobility. This objective aims to promote an inclusive coexistence, prioritizing short distances, night lighting, the density of its spaces to offer various green and safe areas throughout the Madrid Nuevo Norte areas.

Sustainable development goal # 6: Clean water and sanitation. A management ideal of the water involves the integrated management of resources water equitably without jeopardizing the sustainability of the essential ecosystems. This approach seeks to guide the development of public policies in this area, to accommodate the economy and the environment in a sustainable way (Martínez Valdés and Villalejo García, 2018; Grigg, 2014; Biswas, 2009, 2008). The integral management of the water cycle in the Madrid Nuevo Norte program aims to reduce the water footprint to minimum levels. For this objective to be achieved, it is necessary for the city to equip itself with sustainable drainage systems that are capable of simulating the natural water cycle in the different spaces of the project, for this purpose, porous pavements, wells and drainage ditches are used, with These tools can achieve a reduction of 70 % of the volume of water. From this point on, the viability for the development of systems for reusing rainwater from rooftop coverings will be analyzed, building infrastructures that allow its storage and subsequent treatment for use in intelligent irrigation systems, thus reducing considerably the demand for water. This point is essential when referring to the climate forecasts in Spain that will decrease by 10% mainly due to climate change, so the search for sustainable efficiency in water planning is essential.

Sustainable Development goal # 7: affordable and clean energy. Due to the great environmental deterioration that the world is experiencing the advance in the transition from fossil to clean energies has accelerated and assumed significantly in recent years (Mangla, 2020; Kalair et al., 2021; York and Bell, 2019). MNNP is identified with this objective from the substitution of fossil transport towards more means sustainable means of transport. The incorporation of infrastructures that allow the transit of automated buses. In order to achieve that 80% of work trips are made by clean vehicles, it is worth highlighting the Bicimad plan, which focuses on expanding the system's recharging network, thus favoring the use of electric bicycles. Therefore, smart bike sharing is a driver of innovation in terms of urban mobility [83]. In addition, the levels of demand in terms of efficient building construction become one of the basic pillars to achieve the generation of renewable energy in both public and private buildings. It is therefore essential that construction processes adhere to the fundamentals of environmental management, thus establishing more solid sustainable strategies (Gordillo and Elizalde, 2018).. All these points will contribute to achieving the sustainability objectives for an improvement in air quality.

In this sense, it is important to highlight the role of the Sustainable Urban Mobility Plan, which is the main management tool of the Madrid City Council to structure its mobility policies (City of Madrid, 2014). In addition, this is a challenge for the city of Madrid due to its complicated geography and the need for infrastructure that makes it possible to use bicycles in independent lanes from traffic, thus promoting the use of bicycles in a city with poor cycling culture. The existing plan also concentrates on other aspects such as promoting pedestrian mobility, public transport, better use of the taxi service, collaborative mobility, accessibility, etc., in order to increase sustainability through the clean energies within our reach (Junta Municipal del Distrito Centro del Ayuntamiento de Madrid, 2019).

Sustainable development goal # 8: Decent work and economic growth. Cities at a global level are increasingly aware of the need for economic, social and environmental growth in maximum sustainable balance, which benefits the use of quality, inclusiveness and the reasonable use of resources (Garnica, 2019). MNNP defends these principles through a sustainable proposal over time, with the construction of a business center, local shopping centers and commercial basements that can promote job creation in both its construction phases and later use, a figure that together it could reach up to 250,000 jobs

Sustainable development goal # 9: Industry, innovation and infrastructure. One of the most relevant elements when talking about intelligent infrastructure is the application of IT, Big Data and the internet of things. These necessary, intelligent and sustainable environments are possible under the current IT paradigm (Lopez, 2018; Cretu, 2012). The MNN model has opted for the creation of innovative and intelligent infrastructure based on the *Smart Cities* criteria, a concept that supports the economic development, social inclusion and allows the protection of the environment, through formulas targeted to mobility to provide transport with intelligent elements to achieve the desired sustainability with shared, electric and autonomous vehicles.

Sustainable development goal # 10: Reduction of inequalities. The inequalities that exist in our societies are linked to the socioeconomic implications of climate change, in

such a way that the future approach of social models must focus on the protection of the most vulnerable (Eremia, 2017; Volkova et al., 2018; Wu, 2010).. One of the purposes that the UN raises in this objective is to promote the social, economic and political inclusion of all humans. The UN seeks commitment to equal opportunities, and MNNP, following this premise, opts for inclusive urban planning, which introduces protected housing as residential land assigned to housing assistance policies. Likewise, public spaces will be created taking into **cosideration** the needs of current **populatiom but also the newcomers** to the area. The plan also constitutes the creation of different types of facilities such as health, sports cultural and educational facilities for the enjoyment of residents who have actively contributed to the identification of specific needs in the immediate environment where they live.

Sustainable Development goal # 11: Sustainable Cities and communities. In accordance with Goal 11 of the Sustainable Development Agenda, cities must be safe, inclusive, resilient and sustainable. he estimate for 10 years from now is that the world population will live in urban areas is 60% (Cheche, 2021; World Bank, 2017). From this data it is obtained that 95% will be produced in developing countries, which can cause problems of marginalization, waste, water supply, quality of life and public health. But, if managed properly, a high population density in cities can translate into increased efficiency, technological innovation and decreased energy consumption (Garcia, 2017).

MNNP recommends a compact urban model with heterogeneous uses. In this sense, the different green areas and public spaces have been determined thinking about the wellbeing of the citizen, motivating the participation of the communities in different aspects of their design and use. In such a way that, through a new digital tool, people interested in the project can access the website enabled to obtain the necessary information, express their opinions and collaborate on the matter.

Sustainable development goal # 12:

Responsible production and consumption. This objective calls for responsible consumption and production to decouple economic growth from the unsustainable use of resources and emissions. Specifically, it calls for the implementation of programs on Sustainable Consumption and Production in a period of 10 years, to achieve a more efficient use of natural resources, food waste, chemical products and encourage companies to adopt more sustainable practices (Wang et al., 2019; Chan et al., 2018; Cohen and Munoz, 2016). To comply with this argument, a reduction in the consumption of energy, water, and the use of construction materials is proposed to achieve a sustainable and efficient management, therefore, special attention will be paid to the choice of these resources for the previous works and subsequent recycling of current materials and the derivatives that are generated (Coppola et al., 2019).

Sustainable development goal #13: Fight against climate change. It shows how cities can improve their functioning through adaptation policies to respond to climate change and offer practical strategies to address the concerns of cities and reinforce their role as part of the solution (Ahmed et al., 2019; Reckien et al., 2017; Lockwood, 2013). MNN's infrastructures play a crucial role in the fight against climate change by including environmental principles in their designs, which include a wide variety of aspects ranging from the introduction of elements that protect from the sun in public spaces, smart

buildings that provide more energy than consumed, up to the use of renewable energy for transport.

Sustainable Development goal # 15: Ecosystem life. The goal of this objective are biodiversity. Promoting strategic related to terrestrial ecosystems and actions to incorporate biodiversity in a wide range of areas ranging from agriculture to tourism, these measures include the use of economic valuation and environmental assessment tools that measure the potential impact on biodiversity and ecosystems (Yang et al., 2021; Schultz et al., 2016). MNN has estimated initiatives that mainly rely on the use of species adapted to Madrid's climatic conditions to effectively contribute to the city's plant diversity. Likewise, the implementation of green spaces will give the possibility of connecting existing parks with the north area of Madrid, specifically with El Pardo, so a new ecosystem is built that promotes the values and principles of biodiversity.

Sustainable development goal # 17: Partnerships for the goals. The MNN project has been developed based on the importance and need to establish deeper relationships and alliances to promote collective responsibility among the different agents and is considered one of the circumstances that favor the achievement of the objectives set (Stott and Scoppetta, 2020).

At this point it is important also highlight problems that some neighborhood associations (AAVV) have encountered regarding the risks that MNNP entails, beginning with the total volume of buildable space, which is disproportionate to the needs of Madrid. Since of the 2,830,000 m², 1,730,000 m², would be destined for offices. The 11,000 proposed homes is also a high number, since according to these associations there are around 150,000 empty and disused houses. Of this total number of homes, only 20% will be allocated to official protection. This represents an imbalance in the city since the Northwest of Madrid is one of the areas with the least social housing and the most empty free market apartments and offices. It would be important to break the difference between the southern districts, which concentrate the majority of public housing (and the most polluting infrastructure), and the northern districts, where luxury apartments and chalets are concentrated.

Another problem of the project is the proposed green area that is concentrated in a large concrete slab that will serve to cover the train tracks, a very critical point regarding the planification.

Finishing with the risks, Madrid Nuevo Norte does not take into account the construction or adaptation of facilities for existing neighborhoods in the area of the operation.

If we point out the possible decentralization of the city through the MNNP, it could act as a growth strategy, starting from a circle, the heart of which would be formed by centers of financial activity, followed by another corresponding to intermediate height housing areas and single-family homes, the circle would be closed with the industrial areas. Regarding population growth, according to Expansión (2019), Antonio Béjar, the president of the Castellana Norte District, considers that the project is a "structural and strategic operation that will have a great impact on employment and on the added value of Madrid". The study, included in the project processing documentation, reveals that the action will generate 248,598 jobs, of which 118,000 will be created during its development, and another 130,598 once it is finished thanks to the activities that arise in the area, which that can generate an increase in the population of Madrid.

In reference to the possible impact in the mobility, and according to Antonio Béjar, the fundamental difference between Madrid Nuevo Norte and cities like Paris or London is that people will have their work close to their home. "Density and communications will be key. The business center will be part of the largest transport hub in Spain and one of the main ones in Europe. The metro will connect people with the city, the suburban network will connect it with the metropolitan area and the high-speed train will allow us to be three hours at most from any area of Spain the day the AVE is fully developed. In addition, we are 10 minutes from Barajas airport, an asset that no other European city has". He therefore considers that 80% of the journeys to and from this new area will be made by public transport. The remaining 20% will be in private vehicles, whose circulation will be restricted following the new philosophy of Madrid and other European cities.

Poorly planned cities create serious problems for citizens in terms of mobility, because people want their jobs, homes and places of leisure to be relatively close and not invest in fuel. The cities of the future will be based on density, public transport and car sharing, short distances and saving time and resources. It is the most sustainable model from the environmental point of view and the most economically efficient, with lower costs for administrations and citizens", (Expansión, 2019).

The conclusion is a model of urban planning that achieves the principles of urban sustainability. In this way, MNNP reflects these values in all aspects of the project, in environmental, economic and social terms. The transformation of the north of Madrid is a sustainable project, which focuses on reducing pollution, promoting energy efficiency and reducing the consumption of natural resources, all these factors are combined in a successful formula to achieve a profound change in the mobility model in the city. The commitment to sustainability is also reflected in the active participation of citizens, whose opinions were collected through surveys and participation in forums and associations, is particularly relevant and novel. Concerns and experiences as neighbors have been essential factors in the planning of the project, and will be implemented in its final development.

7. Branding Madrid as 'Sustainable City' (answering research questions)

Can Madrid become a sustainable city?

The cities of the world play an essential role in achieving Sustainable Development Goals. Any future perspective regarding the creation of sustainable frameworks must include economic, social, and environmental aspects. By 2050, it is expected that more than half of the world's population will live in cities, which can be interpreted as that the growth rate of cities will become one of the main challenges of the 2030 agenda, due to the direct relationship that exists between population growth and energy consumption.

Under this idea, the city of Madrid has an extensive experience in terms of urban transformation through the development of public policies that respond to the economic and environmental commitments acquired at the European level. In addition to the commitments in the development of policies to achieve the environmental and economic objectives set by the European Union, Madrid has expressed its responsibility in this regard by moving towards a circular economy, low in carbon and respectful with the environment, with the purpose of meet the challenge of becoming a sustainable city (Oquendo-Di Cosola,2020). The indirect objective of the project is to turn Madrid into an international benchmark for modern urban planning, not only for the quality of the infrastructure, but also for firmly establishing the objective of sustainability as the backbone of the project (DCN, 2021). The leading role in this transformation of infrastructures is rail transport, the Chamartín Station being the nuclear center of the planned modification.

And what are the prerequisities for that?

The urban models implemented in cities are fundamentally characterized by an excessive use of resources, which makes them incompatible with the sustainable claims to be achieved. The elements necessary to achieve a sustainable city are varied and require the commitment of society. For this reason, citizens must understand the city from a responsible perspective so that urban strategies are efficient and last over time. There are different means to achieve sustainability, the important thing is to accept and apply them based on the reality of the city (Alcántara et al., 2021). From the point of view of sustainability, it can be said that some of the main challenges that the city is facing are related to factors such as infrastructure, health, education, jobs, waste, systems sanitation and inclusiveness [García 2017; Metaxas et al., 2021). According to Gonzales (2013), there is a need to include certain variables related to controlling the consumption of basic resources (such as soil, water, etc.), as well as waste treatment and pollution management. Other sustainable points to assume in the evaluation of the urban environment are those related to traffic and mobility, actions aimed at better urban and environmental management, protection of cultural heritage and the urban landscape through specific regulations. These considerations will allow to present itself as a more innovative and sustainable city that will benefit its image on international stages.

The objective of urban sustainability is only achievable if the city is considered as a main system divided into other subsystems that interact in a very complex way. Therefore, it is essential to plan and manage cities with the collaboration of public and private organizations to face the necessary investments (García, 2017).

Sustainability, the first of the five axes of the project, focuses on four fundamental areas: water and sanitation management, use of non-polluting energy, creation of a sustainable urban environment and climate action. These areas combine to improve the efficiency of processes taking place in the areas included in the project.

Regarding social participation, it is relevant to underline that it was considered from the beginning of the development of the plan. People become the center of the project, assessing and including their opinions in the different phases of design and planning. A novelty of the project worldwide is the inclusion of the gender perspective, a circumstance that will probably be a trend in the future of modernist urban projects.

Another of the previous mentioned axes is the integration of urban uses, which will be achieved by combining commercial premises, homes, company offices, public infrastructures and other urban spaces. The projected idea is to mix urban uses, efficiently organizing mobility between all spaces. Underlying the project is the concept of Smart City, which sustainably combines access and mobility to urban spaces. In particular, the planned plan aims to make two of the most important infrastructures in the city more accessible: the Chamartín railway station and the Adolfo Suárez International Airport, in Barajas; notably reducing the travel time between both (Metaxas et al., 2021).

The importance of public spaces is the fifth critical aspect of project design. Indeed, a large part of the surface will be used for public use infrastructures, where you can live with neighbors, workers and visitors. The will of the project is coexisting, making possible the interaction between citizens who share sustainable, efficient and inclusive public spaces. The cohesion between the pre-existing infrastructures and the new planned spaces is an essential objective of the project, in which the creation of large green areas and sustainable transport corridors stand out, in which electric transport, pedestrians and cyclists will coexist. Madrid Nuevo Norte will mark the path of state-of-the-art urban planning, combining the five lines of action mentioned above (DCN, 2017).

Could Madrid use MNNP as a branding tool?

Taking into account the actions already commented on the MNN project and from a sustainable perspective, the logical increase in global concern for the environment is manifested in many aspects, which has led to more responsible practices and projects with a social approach (Paniagua, 2021). The global consumer is demanding for a more responsible and conscious attitude regarding the production of the goods and services they consume, from their food to the means of transport they use (OCU, 2018).

Therefore, it is possible to speak of a new challenge for cities, which consists of how to continue offering value, caring for the environment and satisfying a new profile of citizen that demands a different configuration of the cities. From this angle, Madrid could base its promotion strategy on the sustainable brand, which according to Lein (2018) is defined as the common point that integrates environmental, economic and social issues in its procedures. This interesting vision about the city branding could also increase profitability and its brand value, since addressing social, economic and environmental issues can lead to a long-term competitive advantage (Sustainable Brands.2017). In this case, Madrid could increase the value of its image by linking the MNN project and being considered by consumers, visitors, companies and other stakeholders as the new benchmark for a sustainable european city.

8. A proposed branding strategy

Following Jansson and Power (2006), branding strategies usually consist of two different aspects: the material characteristics of the place, such as structures and events, and the nonmaterial aspects, such as stories, slogans, and logos. For instance, Divandari et al. (2014) present a well-organised review of place branding models proposing a complicated model for multipurpose megaprojects in entertainment, residential, tourism, and sport in Iran, At this point, the study proposes the main dimensions of building a branding strategy for the city of Madrid using the MNNP as a key element of sustainability process (Figure 4). This strategy is a combination of the model of '4Rs' (rights, roles, relationships, responsibilities) and the model of '8Ps' (the 4Ps -product, place, price, promotion- plus partnership, people, packaging, programme).



Main axes of MNNP

Figure 4: The proposed model of Madrid sustainable image Source: Authors

The model of 4Rs has a cooperative character and the model of 8Ps a more technocratic one. Following Aitken and Campelo, (2011), the model of '4Rs' related to the social dimension of the branding procedure and all activities of city groups involved in the decision-making process as far as it concerns the image, awareness and identification of a city identity. Based on this model, place marketing/ branding is related to 'bottom up' processes and specifically focuses on dialogue, argumentative exchanges, and controversy (Kavaratzis and Hatch, 2013).

The selection of the '8Ps' model was based on the following: (a) it is more detailed then the '4Ps' model and includes parameters such as 'partnership', 'people' and 'packaging' that are crucial for the successful implementation of a place marketing plan; (b) the marketing of the place, due to its specificity and its need to be effective, requires the cooperation of the local internal forces of the place, and (c) this model was successfully used in four European places in the context of the INTERREG project CultMark, an experience which had an added value to these areas, always taking into account the local distinctiveness and the uniqueness (Deffner and Metaxas, 2008; Deffnet et al, 2019).

This combined model provides the opportunity for Madrid to be effectively promoted as a sustainable city by using the MNNP via the four main axes, *clean water and sanitation, clean energy, sustainable community* and *climate change*. The core development strategy proposed is the Corporative Strategy in the framework of promoting the vision of Madrid as 'sustainable city' as a 'common good'. Finally, the support of Madrid sustainable image attends to two distinctive environments: On the one hand, on investing Madrid extroversion to the international market (external environment) and on the other to the creation of benefit and profits for local community (internal environment).

9. Conclusions

The aim of this study was to award the significance mega infrastrure project as a core element to the creation of branding city image strategy. International experience

offers several cases that mega projects used as main tools for cities branding development strategies. The creation of this branding strategy the last years focused on sustainable development achievement and is getting even crucial when it comes up with the role of mega projects on sustainable development process. At the case of MNNP, the study strongly supports that the project meets sustainability criteria creating at the same time a favourable and attractive sustainable image for the city in international scale. The main aim of the project is to act as benhmarking strategy and guide for similar other projects in european and global scale. The proposed branding strategy model offers to the city the opportunity to get a wider extroversion and to become more efficient on sustainability issues generating through the existence of MNNP added value for the local community and long term profits. At the end its crucial to be mentioned that the whole project should be developed and operated in the frame of the support and promotion of Madrid 'common vision'. This requires by it self the adaptation of synergies and the performance of corporative strategy as the study supports. In any other case, the whole sustainable development process will be failed.

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