Social Innovation, Urban Regeneration, Circular City: A Cross-Country Analysis Post-Covid 19

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Abstract

The document studies urban regeneration as a sustainable development strategy for any city, emphasizing the sphere of urban reality (economic, social, and environmental). The aim is to examine the topic of urban regeneration to the concept of sustainable development after the impact of Covid-19. The paper analyzes how urban regeneration policies can contribute positively to the economic-social-environmental progress of the city. The research proposes a comparative analysis of three case studies of urban regeneration: Hammarby Sjöstad (Stockholm), Euromediterranée (Marseille), and the 'Ex Poligrafico (Rome).

Keywords: Circular City, Circular Economy, Urban Regeneration, Social Innovation, Sustainable Development.

1. INTRODUCTION

At the beginning of 2020, the virus SARS-CoV-2 (Covid-19) unleashed a worldwide pandemic that is still facing. The effects of Covid-19 have been heavy, creating very significant damage both from a health and economic point of view, often making people talk about the specter of recession (Campra et al., 2020; Donthu et al., 2020). However, the pandemic has highlighted something much deeper and more critical: how not all cities can react and resist crises of this type. Looking back has already happened for cities to have faced a crisis or a pandemic; the most famous and relevant examples may be the Spanish flu or the Black Death. From all these situations and experiences, the hardest-hit cities are always those marked by inequalities and a high concentration of urban poor; these are more vulnerable than those with better, less crowded, and more equal resources. The pandemics often emerge on the fringes of cities, as viral outbreaks are, in most cases, incubated and transmitted through peri-urban communities and transport corridors on the outskirts of cities before they spread into the city center. The crisis

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caused by Covid-19 can provide cities and their inhabitants with the opportunity to rethink and drastically change, from scratch, their paradigm of consumption, production, and travel (Rahman, et al., 2021; Campra, et al., 2021; Škareet al., 2021). Therefore, a new way of thinking about the city and rebuilding it in the long term is necessary, based on a new approach to urban spaces that takes more excellent account of the different needs and moves from a vision of mobility to that of accessibility to comforts and essential services. Therefore, concepts such as the "Circular Economy," "sustainable development goals," "tactical urban planning," and "city of 15 minutes" become guidelines for an urban center capable of offering a better quality of life while preserving productivity social inclusion and the environment. Therefore, for a city to get up and react to a crisis must absorb the principles of resilience (European Union, 2015), preparation, prevention, and response. Resilience in cities can be achieved not only by responding to a crisis but especially by having the capacity to anticipate and prepare for solid moments of shock. Preparation provides a basis for managing and limiting damage, considering the costs and times required for recovery in advance. Prevention urges urban centers to invest in resilient infrastructures and tax instruments to reduce exposure to social, economic, and environmental crises. The strategies to be pursued must focus on inclusive, innovative, and green recovery. However, these three guidelines that the city must follow to improve and aim for organic growth aimed at the benefit of its citizens and the environment do not appear to be independent and autonomous. Indeed, all three work on a holistic relationship, recognizing the need to adopt a holistic resilience lens for urban development by updating or developing global resilience strategies; in this period, several urban centers have already begun to develop and implement strategies capable of reviving the economy and resisting any future "waves."

This contribution aims to explore the theme of urban regeneration to the concept of sustainable development following the impact of COVID-19. The purpose of the paper is to analyze how urban regeneration policies can contribute positively to the economic-social-environmental progress of the city. Therefore, this research provides a comparative analysis of three urban regeneration case studies: Hammarby Sjöstad (Stockholm), Euromediterranée (Marseille), and Ex Poligrafico (Rome). The paper is structured as follows: a) literature review and Background: Economic, Social, and Environmental Impacts of Covid-19 on cities; b) comparative case study analysis of three case studies of urban regeneration.

2. LITERATURE REVIEW

The circular economy is a new way of doing economics and seeing the relationship between supply and demand; this mentality has begun recently. It represents the perfect combination of economic and social growth, protection, and respect for the environment and SDGs. Unlike the model used up to now, that of the linear economy, also called "take-make-dispose," where the production of a good, its use, and abandonment is foreseen (involving a high waste of resources with a strong impact environmental); the circular economy seeks to completely reverse this concept by moving towards the progressive reduction of the number of resources, materials, and energy used in production processes (Campra et al, 2021; MacArthur, 2013). The transition to a circular economy does not just mean adjustments to reduce the negative impacts of the linear economy. Instead, it represents a systemic change that creates long-term resilience, generates economic and business opportunities, and provides environmental and social benefits.

The idea of a Circular Economy was born in 1966, when Kenneth Boulding published his essay, The Economics of the Coming Spaceship Earth, raising awareness of an open economy with unlimited resources and production wells (a conception in contrast to the idea of a closed economy, in which resources and productive wells are linked and filed). In 1989, on the other hand, the intervention of the British environmental economists David W. Pearce and R. Kerry Turner was fundamental, underlining how the traditional economy was structured on the tendency not to recycle and indeed on the idea of the environment as a waste reservoir (Economics of Natural Resources and the Environment, Johns Hopkins University Press). This new way of

thinking about consumption and supply is based on rejection and differentiation between consumable and durable components of a product. First, it aims to design waste; the latter is subject to analysis and planning to optimize the disassembly and reuse cycle. Secondly, however, circularity introduces the analysis of the consumables that make up the asset, distinguishing between those suitable to be reabsorbed into the biosphere and those that are harmful and require different treatment. In this regard, the circular economy model distinguishes between technical cycles and biological cycles: biological, consumption of the good that will reintroduce into the system through natural processes such as composting; technicians, recovery, and restoration of products not assimilable by the system through strategies such as reuse, repair, regeneration or recycling.

As explained above, it works directly on goods production, consumption, and waste management. As far as production is concerned, it is necessary to rethink the design of the product and its production; if well designed, products can last longer, be more easily repairable, have a faster disassembly chain and, in general, achieve the most significant possible resource savings. The production processes also require the efficient use of resources and, consequently, a lower loss of commercial opportunities and waste. Primary raw materials, including renewable ones, will play an essential role in production processes, even in a circular economy. Therefore, it is necessary to pay more attention to the environmental and social repercussions deriving from their production (Brussels, The Missing Link - European Union Action Plan for the Circular Economy, 2015). For consumption, on the other hand, a fundamental role is played by the consumers themselves, who can positively or negatively affect the impact of the circular economy; however, these choices determine the information consumers have access to, the range and prices of products on the market, as well as the regulatory framework. This phase is essential to avoid and reduce the production of household waste. Finally, the Circular City is a transposition of the circular economy into a more contained and restricted context such as an urban center, a new way for cities to respond to the crisis and, above all, to use their waste as new resources. For example, annual waste generation in the EU is estimated at around 1.3 billion tonnes and includes waste from the industrial sector (427 million tonnes), power generation, and water supply (127 million tonnes). The building and construction sector (510 million tons), and municipal waste (241 million tons). Significant quantities of waste are also produced by the agricultural, fishing, forestry sectors, extractive industries, and the public and service sectors. Despite the different recycling policies promoted by the Union, more than a quarter of waste is still landfilled. Less than half is subjected to recycling or composting, with significant differences between the Member States in the treatment of municipal waste (accounting for around 10 % of total waste), packaging waste (paper and cardboard, glass, plastic, wood, and metal) and other waste streams (Chamber of Deputies, Environment and land management - The circular economy). Therefore, the circular city, in addition to paying attention to waste management, as already mentioned above, also turns more significant attention to consumption and production. In this regard, Amsterdam, one of the first cities to incorporate and apply the principles of Circular Economy, has collected what should represent the guidelines for a resilient city ready to abandon the take-make-dispose economy. These seven principles are:

1. Closed Loops: all materials are reused and recycled indefinitely;
2. Reduced Emissions: all energy is generated from renewable sources;
3. Value Generation: resources are used to generate shared value (financial and social);
4. Modular Design: all products are designed in a modular and flexible way, and the production chains allow the adaptability of the systems;
5. Innovative Business Models: all the new business models implemented allow the transition from the possession of goods to the use of goods through services;
6. Region-oriented Reverse Logistics: Logistics systems are moved to a more region-oriented service with reverse logistics capabilities;
7. Nature Systems Upgradation: all human activities contribute positively to ecosystems, ecosystem services, and the reconstruction of "natural capital."

Therefore, a city must invest in different sectors, always with a holistic vision, passing through a study to give attention to energy consumption, waste production, or even the creation of natural capital. The example of Amsterdam is followed more and more often by many cities, which thus embody the idea of the Circular City. Examples are the urban centers of Malmö (Sweden) and Berlin (Germany).

The regeneration processes that concern the reconversion, thanks to cultural and social activities different from the primary ones of the regenerated place, are often carried out by bottom-up models that start from the bottom and, more particularly, by associations or private individuals. In this case, the "pioneering" actors are multiple (Litardi et al.; 2019).) Furthermore, the project's success derives from the ability to carry out multi-sector partnerships, which provides for the "synergistic combination of resources and skills to achieve a common purpose of a social nature whose benefits fall on the promoters and their stakeholders "(ICSR, 2012).

The "new social partnership" (Nelson et al., 2003) sees, in the form of collaboration between different subjects (public, private, and third sector), the management of social problems following organic operational methods, with its dynamics, to provide services to the person through the development of joint multidimensional projects that cannot be pursued independently by the individual reality (Litardi et al, G; 2019).

2.1 Background: Economic, Social, and Environmental Impacts of Covid-19 on Cities

The main actors in the fight against crises, be they economic-social imbalances or pandemics, in addition to the individuals themselves, are the cities; during 2020 and 2021, even urban centers were subjected to significant stress, causing negative consequences on the three pillars that make up the city, namely the economic, social and environmental ones. According to the United Nations "World Urbanization Prospects 2018", almost half of the population lives in cities, and it is expected that by 2050 this share will increase to 55%. In a pandemic situation, such as Covid-19, urban centers are better equipped to respond and fight against a virus thanks to their health systems. At the same time, due to population density, urban centers are more likely to become hotbeds due to the proximity between residents and social distances, in some cases completely absent, highlighting that metropolises allow meeting people from other nations, implying a more significant and more accessible spread of the virus (Biancone et al, 2021).

Regarding the economic impact of the pandemic on urban centers, the OECD predicted a GDP contraction of 9.5 percentage points by the end of 2020 if there was a second wave, a prediction realized in Europe at the beginning of the new year there was a third wave, and there is already talk of a fourth wave; this implies a further decline in GDP for countries and a contraction for the global economy. Around the world, some 300 million full-time jobs could be lost, and nearly 450 million companies face the risk of severe disruption. Cities continue to suffer from the pandemic, and the lockdowns imposed by governments more than all the others are those that depend on tourism. As presented in the document published by the OECD (Cities Policy Responses, July 2020), each city has experienced significant economic losses. Paris (France) has recorded a 37% reduction in its economic activity since mid-March; it is estimated that this loss will cost the city 400 million euros. Barcelona (Spain) estimates a drop of 14% in GDP, four times higher than that of the financial crisis of 2009. According to a study on the impact of imprisonment, the other Spanish economic center, Madrid, after three months of closure, the city has risked losing 60,500 direct jobs, which could double to 108,000 if indirect employment (5.4% of total employment) were also included. The breakdown by sector of the data places hospitality as the sector most affected (31.8%, with 19,227 fewer jobs), followed by retail (11.3%, with 6,850 fewer jobs), the personal services (5.6%, which means 3,425 fewer jobs), and culture (2.5%, with 1,497 fewer jobs). The Netherlands, on the other hand, estimated a further economic impact for Amsterdam due to the many tourist activities that remained closed; even if the estimates are not confirmed or in any case-specific, the economic loss is around 1.6 billion euros per month, thus reversing a previous forecast that gave citizens growth equal to 2.3% for a reversal of 1.52, 8 percentage

points. In the UK, major UK cities (Belfast, Birmingham, Bristol, Cardiff, Glasgow, Leeds, Liverpool, Manchester, Newcastle, Nottingham, and Sheffield) have estimated that the crisis has incurred costs of £ 1.6 billion alone. City by May 22 2020. More precisely in Florence, there has been a drastic drop in GDP in Italy, caused by the block that tourism represents 15% of the 35 billion euros of annual GDP (estimated a loss of 200 million euros out of the usual 800). The same negative notes were recorded in the United States; in Washington DC, Covid-19 and the impacts of the pandemic have led to business closures, leading 70,000 workers to apply for unemployment and creating a $ 700 million revenue gap in the current 2020 budget. New York plans to lose $ 7.4 billion in tax revenue in two years while Los Angeles estimates a loss of between $ 425 and $ 829 million. Still, San Francisco experienced a layoff of 5,676 employees and an economic vulnerability that is difficult to stop; it is estimated that the deficit for the next two-year budget will increase between 1.1 and 1.7 billion dollars. Countries to cope with the spread of the virus and the economic losses caused by the closure have recorded an increase in spending mainly due to the purchase of protective devices for public and health workers, the implementation of blocking and protection measures to support the most vulnerable. In addition, a decrease in the income received is motivated by a reduction in tax revenue on individuals and corporate taxes so as not to burden further the costs of citizens (CCRE, May 2020).

On the second pillar of the city, the social aspect, the pandemic has succeeded in highlighting and highlighting the problems already present in the city, making the most vulnerable social groups suffer more. For example, low-paid workers have been struck by closures and social distancing, perhaps due to their business or workplace; again, the elderly who often cannot count on family and friends, have found themselves abandoned and vulnerable, to a change in their habits. Homeless people, estimated at 1.9 million in OECD countries, have no or limited means to isolate themselves and protect themselves from infection. Another sore point concerns that women, who often occupy workstations in the service sector (e.g., tourism, hotels, and restaurants) and are forced to stay at home, will suffer more from the recession-induced by the pandemic and the increase in cases of violence housekeeper. In this regard, the European Union has recognized a correlation between the spread of the virus and social inequalities; in urban areas where there are more significant cases of inadequate housing and a precarious work situation, the cases of Covid19 are higher and with a higher concentration. This correlation was first found and measured in the UK; while in London and the south of the country, the infections seemed to be under control and the R rate (contagion index) had dropped below 1, it was quite another matter for the north-west of the country where the contagion index was still above 1.

Furthermore, the pandemic is also causing damage to people's mental health and the psychological consequences of Covid-19; the long periods of lockdown, political/economic instability, and a continuous spread of the disease undermine people's health. The research company "Open Evidence" compared the reactions recorded in Italy, Spain, and the United Kingdom. In Italy, 41% of the population, in Spain 46, and the United Kingdom 42, both at mental health risk due to various socio-economic vulnerability factors.

Finally, for the environmental sphere, globally, there was a reduction of CO2 equal to 8 percentage points and 17% worldwide for daily CO2 emissions. These decreasing data began to register with the spread of the pandemic and the onset of lockdowns. For example, in New York (USA), a 38% reduction in CO2 emissions compared to the pre-pandemic level was monitored; in Europe, on the other hand, daily emissions fell by 58% during the blocks, thanks also to an 88% reduction in car and motorcycle emissions.

The tangible consequence of these green results was the shift of the Overshoot day (day of overrun), i.e., the date on which the resources offered by the Earth are exhausted in that current year. This date has been postponed by one month, i.e., to August 22; this news is essential as the overshoot day since it is monitored, was getting closer and closer to the beginning of the new year without ever reversing the trend and demonstrating man's inability to use the available

resources correctly without exploiting those destined for future generations. Reduction in transport has not pushed towards a reduction in greenhouse gas emissions; it has generated an overall improvement in the air in large cities; in the countries where the lockdown has been imposed, a 50-75% drop in road transport activity and up to 95% in traffic congestion during peak hours has been monitored. The global level of nitrogen dioxide (pollution related to cars) has plummeted worldwide; as reported by the OECD, the cities of Madrid, Milan, and Rome have recorded a decline of 45%, while Paris has a decline. 54%. This toxin is monitored because it causes many complications for human health, such as the increased likelihood of developing respiratory problems and lung and heart damage (responsible for at least seven million premature deaths). In the 3,000 cities that monitor air pollution globally, more than 80% of residents are exposed to air quality exceeding the World Health Organization limits. By studying the data provided by Copernicus Atmosphere Monitoring Service, it was possible to monitor the air quality of 50 European cities. During the months of lockdown, 42 of these recorded lower than average levels of nitrogen dioxide in March compared to the previous year. However, with the gradual reopening of activities and the increase in circulation, these parameters have increased again, reducing the air quality (Figure 1). This phenomenon occurred even outside the EU; in China, for example, nitrogen dioxide concentrations have returned to "normal" levels. The image below makes it possible to observe the air quality in two different historical moments: before and during the lockdown.

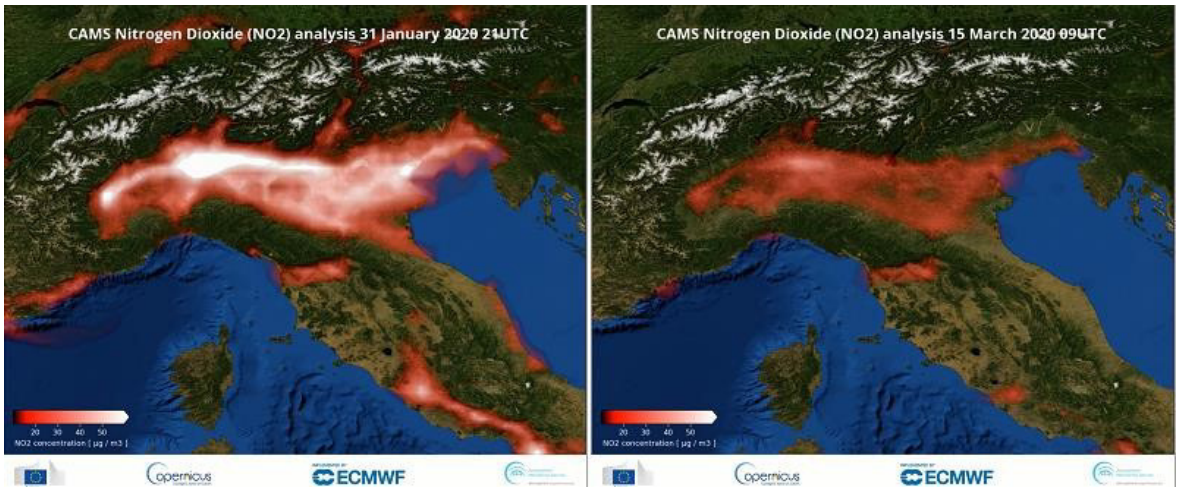

FIGURE 1: Air quality in Northern Italy before and after the national lockdown.

Experts suggest that such progress may only be momentary, given that periods of economic recovery preceding a global crisis are always followed by an increase in greenhouse gas emissions. Furthermore, without coordinated and substantial action, the Covid-19 crisis can put low-carbon investments at serious risk, for several reasons: firstly, economic uncertainty pushes to reduce the funds allocated to the activity. Investment and innovation; second, low fossil fuel energy prices provide weaker incentives for investments in green technologies. The only negative note recorded during this closure period is the increase in solid waste, including non-recyclable waste such as disposable masks and gloves; Infectious medical waste increased by 600%, for example, in Hubei (China) from 40 tons per day to 240 tons of medical waste during the Covid-19 outbreak.

3. METHODOLOGY

The research conducts a qualitative analysis by crossing the issues of Social Innovation and Urban Regeneration focused on Cities and their development towards the Circular City.

Specifically, it deals with Cross-country analysis post-Covid 19 of Three case studies: Hammarby Sjöstad in Stockholm, Euromediterranée in Marseille, and Ex Poligrafico in Rome. Data collection was conducted through a documentary analysis (Bower et al.; 2009) of the three case studies. Data collection was conducted using different categories of investigation: historical and geographical context of the case study, analysis of the proposed and implemented project (timing, objectives, management, and subjects involved), impact on sustainability and sustainable development, and economic investment. Therefore, the following paragraph deals with a Comparative case study divided into six steps as Goodrick (2020) indicated.

4. COMPARATIVE CASE STUDIES

In this paragraph, three urban regeneration projects and interventions are studied: Hammarby Sjöstad in Stockholm, Euromediterranée in Marseille, and Ex Poligrafico in Rome.

4.1 Hammarby Sjöstad in Stockholm (Sweden)

It is a district near the city center which has been chosen as a site undergoing sustainable development; it is located in the southern part of the city and is located along the lake (Sjo) Hammarby and its name means "City waterfront in Hammarby" (Hammarby Waterfront Town) (Figure 2). Industrialization, born initially as an agricultural area, began to be present only towards the end of the nineteenth century, given its strategic position with the city center. During those same years, particularly from 1917 onwards, Hammarby Sjöstad underwent several urban interventions that made it more and more fertile territory for investments, such as the construction of a canal to connect the city to the Baltic Sea or even lines of railways to promote heavy industry (e.g., General Motors, Luma bulbs).

FIGURE 2: Hammarby Sjöstad in Stockholm.

Since the early 90s, there has been a strong demand for housing, in conjunction with the economic boom, which led to a redevelopment of Hammarby Sjöstad; despite being a functioning industrial area, its strong residential potential has prompted the city of Stockholm to do without it and focus on a revival of this area and a more ecological footprint. From 1996 onwards, it has been the protagonist of careful analysis of urban regeneration, so much so that it was incorporated into the city improvement project after the city's candidacy for the 2004 Olympics. With the unsuccessful candidacy, however, the city of Stockholm continued to pursue the principles of sustainability and environmental care, pursuing to create a wholly self-sustainable and independent neighborhood. The end of the project was set for 2012, the year in which 20,000 people would be welcomed in 9,000 housing units, in addition to providing 200,000 m ^ 2 of commercial space, providing jobs for more than 10,000 people. The general objective of Hammarby Sjöstad's mission was to create an urban district capable of responding to all the needs of its citizens by embodying the concept of Sustainable Development as much as possible and respecting the environment; in this regard, the city of Stockholm has promoted decontamination of disused land, provisions for public transit, water, and waste recycling programs and zero impact energy consumption for residents. The entire Stockholm project is

conceptually based on one of the critical objectives of the then United Nations Agenda 21, namely "Promote the sustainable development of human settlements." This goal aimed at the social promotion of sustainable development from an environmental point of view, anticipated Agenda 2030, a document which, as seen in the previous chapters, represents a much more decisive line of action for achieving sustainable development. It is working on the idea that it is the law to guarantee all citizens the same services and possibilities, providing the same primary and standard services throughout the city's jurisdiction (Dastu 2005). In the development of Hammarby Sjöstad, the city of Stockholm completely reconfigured its urban infrastructure landscape to build more significant systemic equity and establish a more solid welfare state (the formation of metabolism that unifies both energy infrastructures and the management of resources and waste). The creation of urban metabolism can significantly increase the economy's efficiency in the short and long term both for the government, the public sector, and the private sector. Therefore, Hammarby Sjöstad, and the entire city of Stockholm, sought to set and pursue four social objectives, such as Social Sustainability, Human Sustainability, Social Equity, and Environmental Education, to realize a complete social sphere.

In terms of Social Sustainability, a balance for both residents' space private and public space exists, guaranteeing the priority and attention paid to the share capital. Considering the high density destined to inhabit this neighborhood, this must promote a greater sense of community through the development and cultural enrichment. A specific example of this type of intervention is the construction and inclusion of the overhanging balconies of the individual apartments. This design element increases the sense of a common space under the balconies and encourages greater social interaction. Hammarby Sjöstad's second form of social sustainability is human sustainability. This element examines how the "feelings" manage to influence the inhabitants' feelings about the neighborhood. That is, rego out and create areas capable of being in harmony with the human State of the resident; an example will certainly clarify this aspect. Within Hammarby Sjöstad, areas of "silence" have been created, that is, places where people can stop to relax and escape from the fast pace of the city; this is just one of several examples of therapeutic destinations for residents. The third sphere of social development is Social Equity; although this was immediately considered a key objective to pursue, it has still not been successfully achieved today. Indeed, the analysis shows that this district is still far from this result, often underlining a marked socio-economic difference and segregation. The residents are described as belonging to a "homogeneous" social group, thus far from the idea of a neighborhood capable of welcoming different social classes with various economic possibilities. At the root of this inability to make housing accessible even to the less well-off, there is certainly the obstacle of increasing construction costs and the gradual elimination of social subsidies for housing, which began during the 1980s. To get a concrete idea of how much the original prices have changed, reflect on the fact that the condominium apartments initially were sold for 8,000 SEK per square meter, while today those same buildings cost 30,000 SEK per square meter (2.7 million for a 90 sqm apartment). On average, the residents' incomes are the highest of all other citizens of Stockholm, and the price of the apartments is comparable to that of the houses in the historic center, even though Hammarby Sjöstad requires much higher monthly management costs. Finally, in terms of the rental market, prices are always very high; this is because the national housing policy does not require developers to provide affordable housing; the only exception is some specific houses, which, however, suffer from their position within the neighborhood, as they do not have a direct view of the bay. The ultimate social goal is Environmental Education; Stockholm has made major investments in educating and encouraging its residents to respect and protect the environment. A fundamental role was played by the Glass House, a building built in the center of the district to promote Green-style technical solutions to advise locals on problems of this nature. The lessons learned from Hammarby development influence the sustainable development niche worldwide to be taken as a benchmark for many other cities. Concerning the environment and its protection, Hammarby Sjöstad immediately placed great importance on the use of renewable and zero-impact energy sources and also on the ability not to create waste. The total energy supply for the community that will serve 30,000

people living and working in the neighborhood comes entirely from renewable energy sources, such as solar energy, hydroelectric energy, and biofuel technology. For the first source, the entire area was equipped with solar panels and solar cells, capable of autonomously generating electricity (the electricity coming from a single module can create 100kWh / year, equivalent to domestic energy used. for three square meters of housing). All heating energy comes from combustible waste from the area recycled in heat or from renewable sources. A significant intervention was also made for the sewers: the water is cleaned and purified in a large sewer system just outside the city and the waste is then recycled into natural gas. Each house, in order to increase the residents' awareness of their actual environmental impact, is equipped with a display in the kitchen where it is possible to monitor how much has been used for electricity, heating, and water. In addition, to reduce the amount of runoff that enters the drainage system, the surface water is cleaned locally. Rain and water of the surrounding houses and gardens are guided by a drainage system that carries it all to the main channel, known as an equalizer, where the water is purified and filtered through sand filters or artificial wetlands in the area. After this process, the water then travels to Lake Hammarby Sjöstad, where it will be used to reorganize the lake level. To further improve traditional ways of recycling and reuse, the district opened (2003) its pilot wastewater treatment center, called Sjostadsverket. The plant of sewage treatment is to test new technologies for waste recycling. Finally, to demonstrate the city's commitment to respecting the environment, the city has also devised a plan for waste management. This plan proposes to achieve a 20% reduction in waste, compared to the average of all new centers, whose statistics are already significantly low. To date, Stockholm aims for two rather ambitious goals: reducing 50% of waste materials and 60% of nutrients from recycled waste or with possible purposes on agricultural land. A different way to avoid impacting the environment is a correct organization of transport that encourages residents not to travel with their car or in any case independently, if not in an ecological way, such as the use of their bicycles; in this regard, the entire neighborhood has been provided with efficient cycle paths and numerous parking spaces for one's vehicle. Otherwise, Hammarby Sjöstad benefits from a transport system based on a light railway infrastructure (Tvarbanan) that has made four stops for this district to quickly connect it to the center and thus provide the same services to every citizen. In addition, in the next few years, it is planned to: extend the tram further east to connect to one of Stockholm's main transport hubs and increase the number of buses also with the addition of a night run, all eco-friendly buses as they are biogas vehicles. Great importance was also given to water transport. The city has implemented the Ferry link service (a ferry that takes five minutes to cross the entire lake), keeping it in service all year round from early morning until midnight. With The Sea Bus (Sjobussen) service, it is possible to reach Nybroviken, the city center, through small biogas boats, a service that will then be implemented in the summer months with the addition of a specific ferry. Finally, for the use of cars, the new highway, Södra Länken, was designed in line with the environmental needs of the city.

Regarding the economic aspect and the financing of the entire project, the national government, through the Local Investment Program (LIP), a subsidy offered by the Swedish government to encourage local governments to adopt new technological ecosystem measures. This grant, approved in January 1998 and became operational on February 3 of the same year, was created to bring the whole of Sweden into an environmentally sustainable society and at the same time encourage the creation of new jobs. The program born with a budget of 5.4 billion crowns, was intended to last for only two years, from '98 to 2000, but was then extended until 2004. The Local Investment Program recognized specific measures that the municipalities had to comply with to benefit from the funds granted. There is talk of reducing the environmental load, increasing energy efficiency and other natural resources, promoting renewable raw materials, greater reuse of assets and their recycling, and finally, contributing to conserving and strengthening biological diversity and safeguarding their environmental and cultural value. In 1998 the city of Stockholm then submitted an application to the government requesting funds for 16 projects (including Hammarby Sjöstad), the request above was approved as 678 million crowns were granted to the city, or 67 million euros, which is about one-tenth of the total amount allocated nationally.

Stockholm thus allocated 400 million crowns (42 million euros): 200 million only for Hammarby Sjöstad and the other 200 instead to be allocated to the districts of Skarholmen and Ostbergahojden. The total cost of the operation was also expected to be around 5.7 billion crowns for the neighborhood studied here and 700 million crowns for the remaining areas by 2006. The government then imposed restrictions on how to invest and use the funds granted, and in which sector and proportion, most of the grant (67% of the 400 million) was allocated to development projects and their demonstration, thus demonstrating the importance of the city places on innovation and technological progress. Destination of the 400 million:

- Technology procurement, to accelerate the development of new technologies and technologies on the way to the commercial application (SEK 60 million / 15%);
- Cooperative procurement, for the reduction of costs and the creation of technology suitable for the environment and capable of expanding the l number of stakeholders (MSEK 15 / 3.75%);
- Knowledge transfer and sharing (SEK 6 million / 1.5%);
- Development and demonstration projects of technological testing systems to achieve commercial acceptance (270 million crowns / 67.5%);
- Incentive for those who present the best proposal for new development and refurbishment (SEK 5 million / 1.25%);
- Incentive for better construction and renovation (SEK 35 million / 8.75%);
- Creation of a new environmental load model for assessing and describing the current situation and the consequences deriving from the application of new projects and alternative solutions (9 million crowns / 2.25%).

4.2 Euroméditerranée Marseille (France)

This case study is an urban regeneration project of the entire French city to rejuvenate it and give it new impulses after the disposal of the port, an event that recorded a significant decline in earnings and, consequently - an increase in unemployment (Figure3). The French government has recognized how to direct interventions in the city can make Marseille more attractive for national and international investments and try to make it one of the most famous and wealthiest cities in the Mediterranean, thus challenging the dominance of metropolises such as Genoa,

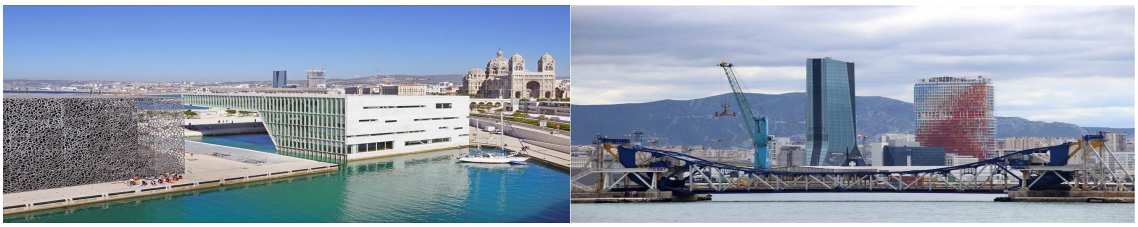

FIGURE 3: Euroméditerranée in Marseille.

Palermo, Naples and of course Barcelona. Initially, the project involved a twenty-year waterfront regeneration, from 1995 to 2015. Subsequently, given the first encouraging results, the French government decided to extend the entire work with new funding from 2007 to 2030. The Euroméditerranée concerns a type of urban regeneration that is not limited to a single building, neighborhood, or area. However, instead, it concerns an entire city, with the ultimate aim of putting it back on its feet to give a shock to its economy but above all to "challenge" the hegemony of other cities in the Mediterranean and to support the other economic pole French, which is Paris.

The history of Marseille is firmly linked to its port and the Mediterranean. Since its foundation by the Greeks in 600 BC, it has benefited from its privileged position between northern Europe, the Mediterranean countries, and Africa, basing its main economic activities on the exploitation of

maritime traffic (Irene Marotta, 2014). After the Second World War, however, the city of Marseille recorded a significant decline in industrial and port activities, the central hub of the city's economy; between 1975 and 1990, the city lost more than 100,000 inhabitants and 58,000 jobs, tripling its unemployment rate (from 7.1% to 23.3%). A similar collapse caused Marseille to collapse from second place as a port of Europe, after Rotterdam, so much so that in 2010 it was relegated to fourth place (after Antwerp, Hamburg, and Amsterdam). The cause of the decline is most likely attributable to various factors, such as the decline of traditional colonial industries and also the increase in international competition, represented by the ports of northern European cities, and the long process of relocation of port and industrial activities in the territories adjacent to the city. The cité phocéenne has suffered so much during this economic collapse, to the point of seeing many citizens abandoning Marseille, because, as happens for many other cities, it was built without any criteria or urban planning consistent with its perspectives. future. Over the decades, this has grown, accentuating the diversity between its two parts: the Southern City, which houses the tertiary and administrative activities, the services of great metropolitan importance, and which houses the residences of the bourgeois class; the North City, which was characterized by working-class neighborhoods, commercial areas and industrial areas in the nineteenth century, but which today are mainly inhabited by less well-off classes and a high percentage of non-EU citizens. Before looking closely at Euromed I and II interventions, the last note is also to consider how during the second half of the twentieth century, the city "ruined" the historic center with aggressive interventions that changed its appearance and integrity, such as the construction of the A7 motorway or the 55 motorway, the latter has formed a natural barrier between the city and the sea. The municipality abandoned former port areas and neighborhoods behind them, thus leaving part of the city heritage to fend for itself. Therefore, urban regeneration interventions became necessary due to the reasons listed above. It was reorganizing an entire city that - after a reckless, irrational growth and a period of general abandonment - needed a well-structured plan and above all in line with the new needs of citizens, always maintaining the proper respect for the protection of the environment.

The Project Euroméditerranée is composed of two actions:

- Euroméditerranée I (Euromed I), from 1995 to 2015, which provided for the recovery of the waterfront, the former port area north of the city, with its slums, the railway station area, and part of the historic center;
- Euroméditerranée II (Euromed II), from 2007 to 2030, with the recovery of the former industrial areas north of the perimeter of Euromed I; in this case of regeneration, however, in addition to the aim of redeveloping the urban heritage, the project plans to create an eco-sustainable city through the rules of environmental sustainability.

It began in the early 90s, during the economic crisis that hit several European countries; Marseille managed to react by carrying out new economic and urban strategies that became the engine of the city's economic, urban and social development. Thus, in 1995, the French State, together with the local authorities, established the Etablissement Public D'amenagement Euroméditerranée (EPAEM), a public structure operated by the State and Local Public Bodies to manage the entire urban regeneration project. . This highlights the complete cohesion and cooperation that is established between the state and local administrations. As previously announced, the affected area was the one containing: a part of the port, ancient abandoned industrial complexes, a part of the historic center, residential districts that host Haussmanian buildings of great value, the architecture of little interest, large infrastructural networks, monuments, and urban voids. EPAEM has envisaged the design of five distinct operations: the new Joliette business district; the Cité de la Méditerranée with the Arena district; the Saint-Charles pole; the redevelopment of the rue de la République and the Belle de Mai. One of the most interesting is undoubtedly that of the Cité de la Méditerranée district (2000 - 2015), which involved the redevelopment of a part of the former port area of the city. The intervention involved the construction of ample public space, the Esplanade du J4, in place of the ancient pier J4, in which it is possible to visit several critical monuments for

the change of Marseille, such as the Mucem (Musée des Civilizations de l'Europe et de la Méditerranée), the Fort Saint-Jean and the Villa Méditerranée. The Mucem is a cubic-shaped museum of 19 meters in height, covered with perforated concrete panels, containing various works of art that have the task of narrating and making known the cultural heritage of the populations who inhabited the Mediterranean. Through a metal walkway, this building is connected to the exhibition halls of Fort Saint-Jean. A building that not only performs exhibition and cultural functions but, thanks to the terraces and open spaces on the roof and which have been recovered and open to the public for free, becomes one of the new public spaces that all can use. Another iconic building of Euromed I is undoubtedly the Villa Méditerranée located along the Marseille waterfront. Funded by the Provence-Alpes-Cote d'Azur region and designed by the Italian architect Stefano Boeri, the same creator of the Bosco Verticale in Milan; the Villa is an international center that aims to encourage reflections on dialogue and exchanges in the Mediterranean. The latest works by Euromed I are two new squares, the Place de la Joliette and the place de la Méditerranée, connected by a new road, the Boulevard du Littoral, which replaced the A55 motorway viaduct. These two squares were built to give the Marseillais new pedestrian spaces where they can relax, but above all, they were created to reduce car traffic in a city where, until recently, public spaces were very few. With Euromed I, Marseille has made great strides, albeit through a not very innovative strategy; the one done by the French city is a type of intervention that can be defined as "standard." Many cities in the Mediterranean have already implemented and applied a similar intervention twenty years earlier; this is the case in Barcelona, Lisbon, Bilbao, and Genoa. Marseille thus put itself on par with the other cities, moreover what was done by the cité phocéenne was more than enough given how the city seems to have been reborn from a tourist point of view. The culture-related strategies of Euromed I contributed to Marseille's victory as the European Capital of Culture in 2013.

Given the considerable progress and goals achieved, EPAM then decided in 2007 to continue the vast urban regeneration intervention through a second phase, Euromed II; as previously anticipated, this new intervention will be aimed at the northern part of the Euromed I perimeter. EPAM intends to redevelop one of the most degraded parts of the city, that is, the area located next to the natural valley of the Aygalades stream; this area was initially born as one of the economic poles of the city, so much so that it was the subject of major industrial transformations and massive infrastructural networks (the A55 motorway first of all). However, after the industrial crisis, the area experienced a drastic economic decline and consequent abandonment, making this part of the city one of the most degraded and dangerous. After having announced an international competition in July 2008 for an appointed team that would take care of creating and managing an action plan, after a few months, the project was launched, and a probable end date was also set, namely 2030. In this regard, however, due to the pandemic and general blockades, the works will inevitably be prolonged, postponing the closing date of the construction sites. However, it is estimated that in these twenty years of interventions, 14,000 new accommodations will be built, of which 4,200 social residences and 2,100 accessible accommodations at controlled prices; in addition, these new accommodations will be joined by the 1,500 already existing but in the process of recovery. Euromed II will then create 500,000 m^2 of offices, 176,000 m^2 of public services and commercial activities, and 14 hectares of public green spaces (Irene Marotta, 2014). The entire work that revolves around Euromed II will be based on eco-sustainable development (Marseille as a sustainable Mediterranean city); the project aims to enhance the city's strengths, both from a morphological and geographical point of view. In addition, the project envisages the enhancement of the underground stream des Aygalades, which, once brought to light, will have the function of recovering rainwater; a sizeable metropolitan park is planned around it, which will try to solve the problems related to the overflow of the areas around the river. As regards the theme of the recovery of industrial heritage, strongly present in this area, especially in the Les Crottes district, it is possible to say that progress has been made concerning the experience of Euromed I; in the first phase of the project, in fact, most of the private industrial buildings, present in the perimeter of the intervention, were demolished. For the case of Euromed II, EPAEM instead avoided possible demolitions, purchasing the buildings that appeared to be the most

interested to recover them and integrating them into the final project. As a demonstration of the progress made by the city of Marseille, although the works are still far from being completed, it won the recognition of EcoCité in 2009, conferred on it by the French State.

As for the economic aspect and the loans granted, both Euromed I and Euromed II received funding from the public and private sectors. State and local authorities have signed four funding agreements for the following periods: 1995-2001, 2001-2006, 2006-2012, and 2011-2020. In addition, a significant contribution was also provided by the European Union through funding for specific interventions; between 1995 and 2012, the EU granted a reasonable 50 million euros, all aimed at the creation of public structures. The first project, Euromed I, obtained public-private funding of 3.5 billion euros to be allocated to the five main projects listed above (Joliette, Cité de la Méditerranée, Saint - Charles, rue de la République and la Belle de Mai). These investments indeed recorded positive and encouraging results; in fact, it is estimated that every euro invested by the public sector has generated a further investment of 2.50 euros by the private sector. The goal of Euroméditerranée I was to give Marseille a new facade and recover abandoned areas and, above all, strengthen the tertiary sector, a real weak point of the Marseille economy. In fact, in 2012, 19,000 new jobs were registered, demonstrating that the economic recovery has taken place. In this regard, the French government itself has suffered from the positive effects, so much to push, as mentioned before, to an extension of the experience, giving life to Euroméditerranée II, this new project born in 2008 has received a total investment of 531 million euros; to which it is estimated that a further 3 billion euros of private investments will be added. Until 2018, total investments for urban development in the Euroméditerranée amounted to around 6.7 billion euros (of which 1.2 billion euros from public funds). Finally, private and public investments of 7 billion euros are expected for the next few years, thus bringing total investments to around 14 billion euros.

4.3 The Ex Poligrafico in Rome

Historic building located in the Parioli - Pinciano residential district, precisely in Piazza Verdi, between two large green lungs of the city, Villa Ada to the north and Villa Borghese to the south. This urban regeneration intervention is considered a "particularity" compared to the previous ones in Stockholm and Marseille. In this case, we are talking about a single building that will be wholly reorganized after urban regeneration interventions are promoted - and here is the further peculiarity - by a private company, both Enel S.p.a and Rosewood Hotels and Resort International limited. In this case study, the State intervention does not seem to exist, or in any case, it seems to be marginal to the completion of the work.

FIGURE 4: Ex Poligrafico in Rome.

The former Poligrafico was built in 1914 to host the headquarters of the Italian Post Office and then converted as the headquarters of the State Printing and Mint Institute and inaugurated in 1928 by Benito Mussolini; initially, its original name was Regia Officina Carta e Valori and remained operational as a Poligrafico until 2010. It is considered one of the most representative buildings of Art Nouveau architecture in Rome. The building occupies an entire block of about 17,000 square meters and is spread over seven floors above ground for a gross area of about 72,000 square meters. The building, sold in 2005 to Fintecna, is currently owned by the Cassa Depositi e Prestiti Group (CDP). The complex initially envisaged two different renovations from

two different entities respectively. The construction of the luxury hotel and the rationalization of the Enel offices within the complex was planned.

Regarding hotels construction, some talk of negotiation and intervention started some time ago but has been wholly skipped since 2019. A considerable part of the Ex Poligrafico (i.e., 50% of the area) had to be converted into a luxury hotel of about 200 rooms and 171 residential units, as well as four underground floors for parking for an area of 11,000 m2, managed by Rosewood Hotels and Resort International, limited, controlled by New World China Land Ltd, based on a specific management agreement. The agreement has already been found and signed between the companies in 2015. In this regard, investments of approximately 180 million euros were expected, a small amount destined for the refurbishment and pedestrianization of Piazza Verdi. However, in June 2019, the agreement between the parties fell apart; the reasons still do not seem straightforward, but there has been talking of excessive slowdowns. The only intervention that seems to be being carried out is intended for the remaining part of the property in Piazza Verdi. After negotiation between Enel S.p.a. and CDP and the stipulation of a 24-year lease agreement with Residential real estate (a company also of the CDP Group), will host the new offices of Enel S.p.a. Initially, the leading company in Italy in the energy field intended to move its offices to the Eur towers, taking over from Tim. However, the agreement was not found, and also for reasons of economic savings, it was decided to turn its attention to the Ex Poligrafico. After some negotiations, the agreement was found and provided for CDP to build a new operational headquarters for Enel on approximately 30,000 square meters. The collaboration between the parties will lead to the recovery of the property, thanks to a set of solutions based on sustainability, thus making it fully compliant with the new energy and environmental standards.

Furthermore, thanks to the fruitful collaboration between CDP and Roma Capitale, it was possible to launch a project to make the former Poligrafico a virtuous international example in recovering historic buildings for office use. Unfortunately, with the abandonment of the idea of the hotel, however, total recovery will not be possible as we are talking about a mammoth building that Enel does not need in its entirety; we are therefore perhaps waiting for further tenants. For the moment, the redevelopment already started in 2019 with the construction of an underground car park with four floors for a total of 285 parking spaces, the strip-out works (selective dismantling and demolition), and the restoration of the facades, will continue with the construction of the offices until completion expected in 2022 / early 2023 (maximum in May). From an economic point of view, however, the investment established by the Ministry of Economy and Finance (MEF) is equal to 35 million euros:

- 27 million for works (77.15%);
- 5 million for internal fittings (14.27%);
- 3 million for technical and administrative expenses (8.58%).

Instead, the cost of regenerating the entire property, excluding these 35 million euros, is around 120 million. With this initial urban regeneration intervention, it will be possible to resume a historic building that has long been abandoned, not only by finding a new use but by restoring it and making it compliant with the new sustainability criteria; due to the pandemic. However, the completion times have slipped and therefore the new Enel offices will most likely see the light in late 2023. The intervention itself will include a project aimed at increasing the well-being of people, through modern, comfortable, and in line with a more agile organization. The lighting and air conditioning systems will ensure the best comfort conditions while the distribution of spaces will ensure the alternation of work environments with indoor and outdoor green spaces and areas dedicated to psycho-physical well-being; the building will also increase the spaces for personal use services. Finally, the works will follow a line of intervention aimed at the sustainability and comfort of the building, to obtain, after careful analysis by external and international bodies, the LEED and WELL certifications, both with the minimum Gold level.

5. DISCUSSION

Based on the literature review, supported by comparative cases studies, this paper has reflected the concept of the circular economy, urban regeneration, and social innovation—their applications in different countries and economic, environmental, and social impacts. The research confirms the need for cities to achieve sustainable development (Agenda 2030, 2015) based on the logic of a circular economy. Therefore, a city is not based on a linear "take-do-dispose" growth model (production of an asset, its use, and abandonment) but on a model that aims to progressively reduce the resources, materials, and energies used in the production processes. (Campra et al., 2021; MacArthur, 2013). The different characteristics of the cases studies are summarized in Table 1.

TABLE 1: Comparative Case Studies.

Case Study / characteristics	Hammarby Sjöstad	Euromediterranée	Ex Poligrafico
City / Country	Stockholm / Sweden	Marseille / France	Rome / Italy
Impact on Society	Example: 1. overhanging balconies of the individual apartments; 2. areas of "silence"; 3. Glass House; 4.Display to monitor consumption in the apartments	Example: New public spaces such as Esplanade du J4; several key monuments; green spaces to reduce pollution	Building recovery; Economic and Touristic Incentive
Impact of Covid-19	Strength: Through transit-oriented development strategies (TOD), land use and transport policies have enabled safer transport use through transit-oriented development strategies (TOD). There are no delays in future planning.	Strength: financial, economic, and tourist support; Weakness: slight slowdowns	Waiting for promoters due to disagreements and "pandemic" changes": competent working and dismissal of offices; tourism sector in decline.
Promoter	Public	Public and Private	Private
Completed / in progress	Completed and European Green Capital in 2010 but in continuous improvement towards the Sustainable Development	Euromed I: completed (1995 - 2015); Euromed II: In progress (2007 - 2030); Recognition of EcoCité in 2009	In progress. Delay due to dissonance and of promoter
Sustainable Development (SS)	Purpose (SS): Promote the sustainable development of human settlements; four social objectives: 1. Social Sustainability, 2. Human Sustainability, 3. Social Equity 4. Environmental Education	Purpose (SS): economic, tourist, and a social impulse to "challenge" the hegemony of other Mediterranean cities; Specific objective: Marseille as a sustainable Mediterranean city	Purpose (SS): Initially, luxury hotels and sustainable offices, are currently being defined.
Urban Regeneration	District	City	Building
Circular City	Systemic equity: energy infrastructure, resource and waste management. E.g. Energy supply of the	Designed but not built: valorization system of the underground stream and recovery of	Redevelopment with energy, sustainable and green environmental

	district from renewable energies; sewer system that recycles natural gas; Green transport	rainwater, recovery, industrial assets, and urban development.	standards

SOURCE: Author's elaboration.

In general, there are different approaches to the development of projects in the different states (Sweden, France, Italy), although we have all incorporated the concept of SS (SDGs). This one could be associated with a different cultural heritage. Furthermore, urban regeneration projects require a multi-sector collaboration (Nelson et al., 2003) that exploits the skills and peculiarities of the subjects (Litardi et al., 2019). Despite this, the three case studies (Hammarby Sjöstad, Euromediterranée, Ex Poligrafico) show the need for a public promoter. The Italian case study (promoted only by private subjects) highlights the lack of a public promoter to protect the interest of the project (by its nature of public interest) present in the other two case studies. The Ex Poligrafico is the project that has encountered the most obstacles, brought about delays and changes, and is still in progress. Furthermore, the analysis highlights different redevelopment areas (District, City, Building) and different circular city activities.
The advent of Covid-19 triggered a significant economic impact (Campra et al., 2020; Donthu et al., 2020) that has developed within cities in different ways depending on the promoter of the projects.

6. CONCLUSION

The planet shows signs of intolerance, which need to be captured and understood due to climate change and resource scarcity. In a general context where sustainable development (Agenda 2030, 2015) is the only way to thrive, urban regeneration can be an excellent tool to achieve it. This is why a linear growth model, also called "take-make-dispose", where the production of a good, its use, and abandonment (involving a high waste of resources with a substantial environmental impact) is no longer conceivable and instead, it must give way to a new way of interpreting supply and demand. The Circular Economy, therefore, arises as a possible solution to this problem, demonstrating that it is possible to grow and progress, as humankind has always done in history, without however going to have a significant impact on the planet (Rizos et al.; 2017). Moreover, it must also represent a systemic change capable of creating long-term resilience - knowing how to adapt to the changes, generating economic and commercial opportunities, and providing environmental and social benefits.

The general awareness of sustainable development took shape with the definition of the 2030 Agenda. During the drafting of the paper, the impact generated by the COVID-19 pandemic was studied both on the progress made and on future predictions, observing that Covid-19 has significantly worsened the odds of successfully achieving the Agenda 2030 goals, (Campra et al., 2020; Donthu et al., 2020) mainly - but not only - for the Italian case study. However, the pandemic has generated positive effects on specific goals: Goal 7 (Clean and accessible energy); Goal 13 (Fight against climate change); Goal 14 (Life underwater); Goal 15 (Life on Earth) facilitated by the lockdown, as illustrated for example in Figure 1. A momentary condition limits such progress given the socio-economic-daily recovery. Thus, it appears necessary to find a new way to grow economically by respecting the old environmental, economic, and social criteria, and a new one, highlighted by the pandemic, namely the ability to be resilient.

Furthermore, without coordinated and substantial action, the Covid-19 crisis can put low-carbon investments at serious risk, for several reasons: firstly, economic uncertainty pushes to reduce the funds allocated to the activity. Investment and innovation; second, low fossil fuel energy prices provide weaker incentives for investments in green technologies.

Therefore, during the drafting of the paper, an attempt was made to identify a perfect combination of the two elements: sustainable development and urban resilience. An answer to this need exists and is precisely urban regeneration; this demonstrates how it is possible to revive sections of abandoned cities by giving new economic and social impulses, while at the same time managing to do so in a green and economically sustainable way; in this regard, towards the conclusion of the paper, various case studies were presented to support the thesis.

What has transpired about urban regeneration is how it provides for an intervention method that is always applicable, regardless of the place and historical moment. However, it requires applying four fixed and repeating steps: Scoping, Planning, Financing, and Implementation. Scoping is a process that provides private and public investors with a strategic assessment of a specific environment. Planning establishes the long-term vision and context, i.e., the planning system and process, financing is the economic aspect of the project, the search for funds from both the public and private sectors. Implementation of the transposition of the sole idea of long-term change in the financial, contractual, and institutional relationship between the public and private sectors.

Generally, the research is limited by the different timing of activation and development of the projects of the study groups analyzed and consequently by the impact of Covid-19, which has changed programming times.

However, the study observes that the key to success is urban governance. This new government model provides for less hierarchical control but greater cooperation between the actors, thus encouraging a tendential increase in social capital made up of synergies and mutual trust. (Lizardi et al., 2019) always and in any case add unitary agreements. This aspect can be further investigated in future research. What makes the new urban governance genuinely innovative is the concertation, that is, the cooperative aspect that brings together actors whose interests are different and potentially in contrast; in fact, the new governance does not imply that the various actors always and in any case reach unitary agreements. This aspect can be further investigated in future research.

7. REFERENCES

Alessi, L., Benczur, P., Campolongo, F., Cariboni, J., Manca, A. R., Menyhert, B., & Pagano, A. (2020). The resilience of EU member states to the financial and economic crisis. *Social Indicators Research*, *148*(2), 569-598. https://doi.org/10.1007/s11205-019-02200-1.

Amendola, G. (1997). *La città postmoderna: magie e paure della metropoli contemporanea*. Laterza, Roma-Bari.

Bianchi, M. (2018). Rigenerazione urbana ed innovazione sociale: Il caso di Gillet Square, progetto di cultura urbana guidato dalla comunità (A New Place, a New Community: The Case Study of Gillet Square, a Community-Led Urban Regeneration Project). *Euricse Working Papers, No. 105 | 18*. https://doi.org/10.2139/ssrn.3297508.

Biancone, P., Brescia, V., & Jafari-Sadeghi, V. (2021). The impact of the COVID-19 on policies and investments of the European Green Deal. *European journal of volunteering and community-based projects*, *1*(3), 60-77.

Bobbio, L. (2002). *I governi locali nelle democrazie contemporanee.* Laterza, Roma-Bari.

Boulding, K. (1966). The economics of the coming spaceship earth. In Markandya, A., & Richardson, J. (eds.), *Environmental Quality in a Growing Economy*. Baltimore: Johns Hopkins Press, 27-35.

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative research journal, 9*(2), 27-40. https://doi.org/10.3316/QRJ0902027.

Bruschi, I. (2017). Economia circolare: produrre, consumare, riutilizzare. *Rienergia: ambiente e risorse,* https://rienergia.staffettaonline.com/articolo/32825/Economia+circolare:+produrre,+consumare,+riutilizzare/Bruschi, consulted on December 2021.

Camagni, R. (2003). Città, governance urbana e politiche urbane europee. *DISP-The Planning Review*, *39*(152), 26-36. https://doi.org/10.1080/02513625.2003.10556831.

Campra, M., Brescia, V., Jafari-Sadeghi, V., & Calandra, D. (2021). Islamic countries and Maqasid al-Shariah towards the circular economy. The Dubai case study. *European Journal of Islamic Finance*, (17). https://doi.org/10.13135/2421-2172/4560.

Campra, M., Esposito, P., & Brescia, V. (2020). State of the art of COVID-19 and business, management, and accounting sector. A bibliometrix analysis. *International Journal of Business and Management*, *16*(1). https://doi.org/10.5539/ijbm.v16n1p35.

Cavalli, L., & Lizzi, G. (2020). Agenda 2030: il freno della pandemia, *Istituto per gli studi di politica internazionale*, www.ispionline.it.

Couch, C., Fraser, C., & Percy, S. (2008). *Urban regeneration in Europe*. Wiley-Blackwell.

Crouch, C., Gales, P. L., Trigilia, C., & Voelzkow, H. (2001). Local production systems in Europe: Rise or demise?. *OUP Catalogue*. Oxford University Press.

Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of business research*, *117*, 284-289. https://doi.org/10.1016/j.jbusres.2020.06.008.

Goodrick, D. (2020). *Comparative case studies*. SAGE Publications Limited.

Healey, P. (1991). Urban regeneration and the development industry. *Regional studies*, *25*(2), 97-110. https://doi.org/10.1080/00343409112331346327.

Hwang, K. H. (2014). Finding urban identity through culture-led urban regeneration. *Journal of Urban Management*, *3*(1-2), 67-85. https://doi.org/10.1016/S2226-5856(18)30084-0.

Kirchherr, J., Piscicelli, L., Bour, R., Kostense-Smit, E., Muller, J., Huibrechtse-Truijens, A., & Hekkert, M. (2018). Barriers to the circular economy: Evidence from the European Union (EU). *Ecological economics*, *150*, 264-272. https://doi.org/10.1016/j.ecolecon.2018.04.028.

Litardi, I., Fiorani, G., (2019). La rigenerazione territoriale come processo di cambiamento per lo sviluppo sostenibile. il patrimonio ferroviario italiano. *Azienda Pubblica, Maggioli Editore*, 99-108.

MacArthur, E. (2013). Towards the circular economy. *Journal of Industrial Ecology*, *2*(1), 23-44.

Maes, J., Zulian, G., Günther, S., Thijssen, M., & Raynal, J. (2019). Enhancing resilience of urban ecosystems through green infrastructure (EnRoute). *Publications Office of the European Union: Luxembourg*, 1-115.

Manca, A. R., Benczur, P., & Giovannini, E. (2017). *Building a scientific narrative towards a more resilient EU society. Part 1: A conceptual framework*. JRC Working, Joint Research Centre (Seville site).

Mayntz, R. (1999). La teoria della governance: sfide e prospettive. *Italian Political Science Review/Rivista Italiana di Scienza Politica*, *29*(1), 3-21. https://doi.org/10.1017/S0048840200026472.

Moldan, B., Janoušková, S., & Hák, T. (2012). How to understand and measure environmental sustainability: Indicators and targets. *Ecological Indicators*, *17*, 4-13. https://doi.org/10.1016/j.ecolind.2011.04.033.

Rahman, M. K., Gazi, M. A. I., Bhuiyan, M. A., & Rahaman, M. A. (2021). Effect of Covid-19 pandemic on tourist travel risk and management perceptions. *Plos one*, *16*(9), e0256486. https://doi.org/10.1371/journal.pone.0256486.

Ribeiro, F. L. (2008). Urban regeneration economics: The case of Lisbon's old downtown. *International Journal of Strategic Property Management*, *12*(3), 203-213. https://doi.org/10.3846/1648-715X.2008.12.203-213.

Rizos, V., Tuokko, K., & Behrens, A. (2017). The Circular Economy: A review of definitions, processes and impacts. *CEPS Papers*, (12440).

Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G., & Woelm, F. (2021). *Sustainable development report 2020: The sustainable development goals and covid-19 includes the SDG index and dashboards*. Cambridge University Press.

Škare, M., Soriano, D. R., & Porada-Rochoń, M. (2021). Impact of COVID-19 on the travel and tourism industry. *Technological Forecasting and Social Change*, *163*, 120469.

WCED (World Commission on Environment and Development) (1987). *Our common future*. Oxford University Press, Oxford.