



THE CITY OF THE FUTURE



MANIFESTO

of green economy for
architecture and urban planning





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MANIFESTO OF GREEN ECONOMY FOR ARCHITECTURE AND URBAN PLANNING

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1

TACKLING THE CHALLENGES THAT CITIES FACE BY FOCUSING ON A GREEN ECONOMY

Cities have played a major role in both the successes and crises that have marked human civilisation. They are not only the places where the majority of the population lives; they also are where the greatest contradictions and the most promising opportunities for change can be found.

Many different factors must be taken into consideration in every project and improvement plan carried out in our cities and towns in Italy, such as: the extraordinary historical and architectural heritage; the beauty of the countryside with its landscapes and biodiversity; the urgent need to tackle and overcome significant environmental and social degradation; climate change; the elevated seismic risk and the growing hydrogeological instability.

Furthermore, several issues should provide food for thought: decades of unhindered poor quality construction, which has led to significant consequences for the environment; the delays that have built up due to the many changes that have occurred and the new possibilities offered by networks, and by the development of information and communication technologies; and the mediocre results in urban management and territory planning.

In the past century, models of uncontrolled urban expansion and development have shown to be unable to deal with the new problems and challenges that have arisen. The deterioration of living standards and of urban environments; the worsening of the climate crisis; the depletion of natural assets, the prolonged local crisis that has led to a high unemployment rate, especially among young adults; and an increasing difficulty in promoting social inclusion and integration, particularly among immigrants.

Architecture and urban planning can play a key role in tackling such challenges, as long as they are supported by both a vision and a widespread awareness of the problems of our time; by the ability to use research and develop knowledge, together with the best technologies and practices available.

In such circumstances, a green economy represents a steppingstone for architecture and town planning, and it is essential in order to turn the challenges we face – ecological and climatic, as well as economic and social ones – into extraordinary opportunities for relaunching and regenerating cities.



2

TACKLING THE CHALLENGE OF CLIMATE CHANGE WITH ADAPTATION AND MITIGATION MEASURES THAT FOCUS ON UPDATED BIOCLIMATIC AND ENERGY SYSTEMS

Cities and buildings consume too much energy mainly derived from fossil fuels. The environmental impact of urban systems – due to both the depletion of natural resources and the emission of pollutants that are dangerous for human health as well as for the climate – affects areas that go far beyond cities borders.

Climate change is the major global challenge of our time, it is happening right now and it will continue to have significant effects on our cities. Therefore, cities will have to become more resilient through planning and implementation of adaptation policies and measures. Moreover, cities will have to play a strategic role in the implementation of effective climate mitigation policies by working towards a drastic reduction in greenhouse gas emissions.

With the aim of implementing effective adaptation policies, the process of understanding environmental characteristics at a local level and the upgrading of bioclimatic and technological systems, are key factors. The main objective is to reduce the level of vulnerability of urban systems to extreme weather events, such as short but intense rainfall and the proliferation of urban heat islands. In order to increase building resilience, we need to make the most of bioclimatic systems, including natural ventilation, passive cooling and solar protection, which will improve the comfort and wellbeing of all users.

If we want to foster climate mitigation in both the construction industry and urban planning, then

innovation, although in need of improvements, is pivotal. Innovation is particularly required in technological design and energy management to reduce buildings energy requirements and to allow them to reach the highest energy efficiency levels through systematic energy diagnosis and regular monitoring of consumption, output and efficiency performance.

Smart home automation and building management control systems offer enormous possibilities for reducing energy requirements and encouraging innovative energy models in architecture: from the widespread use of passive bioclimatic systems of high-efficiency active lighting systems, to the reduction of energy consumption when choosing specific technological systems, materials and components. The aim is to progress from nearly zero energy buildings to net zero energy buildings and to, finally, positive energy buildings. To achieve this, the integrated role of renewable energy sources in architecture is key. Cities must provide the main stimulus for the widespread use of renewable energy generation and storage systems, as well as the development of smart networks, which will ensure cities' adaptability over time.

Looking for solutions that can successfully tackle climate change will play a decisive role in the future of our cities, and this is offering to the fields of architecture and urban planning an extraordinary opportunity for innovation and development.



3

MAKING THE PROTECTION OF NATURAL ASSETS AND THE ECOLOGICAL QUALITY OF URBAN SYSTEMS CENTRAL TO RELAUNCHING ARCHITECTURE AND URBAN PLANNING

The chaotic and uncontrolled expansion of cities, fuelled by property speculation and an increase in the value of property, combined with inadequate environmental awareness, is no longer sustainable. It in fact leads to high environmental costs and it jeopardises important aspects of the quality and liveability of cities and their very future.

All too often, threshold limit of air, water and ground pollution are exceeded. The availability of sufficient drinking water is not always guaranteed for all. Water supply networks are inadequate, as are sewage treatment plants. Buildings consume too many natural resources and produce too much waste, with delays in recycling of materials, particularly aggregates of construction and demolition wastes.

If we want to reverse environmental deterioration, we need to start over by focusing on the ecological quality of cities: investing in natural assets; protecting and restoring ecological networks; promoting green infrastructure; reviving agriculture in peri-urban areas; safeguarding sources of water; improving the efficient use of resources; aiming towards more sustainable transport systems and applying more efficient instruments and models for monitoring and assessment of impacts.

The construction industry, with the support of higher technical quality and improvements in the analysis of its own production process and product life cycles, must be the driving force behind a new phase of development. It should become a key player in a circular economy model that minimises the use of natural resources; practises selective demolition; aims at recovering, recycling and reusing materials; shortens the supply chain, making it more efficient; eliminates the use of dangerous components and substances; develops the use of eco-friendly

materials; drastically reduces energy consumption and harmful emissions; and optimises how water resources are used and saved. The use of building evaluation systems and environmental certifications based on avant-garde standards in building design, materials, construction and management – checked by independent, qualified organisations – should be promoted for pushing companies to improve and to orient the market, giving citizens the opportunity to make informed decision.

For far too long, the fields of property development and town planning have underestimated the urgent need to transform urban transport systems, which create smog, noise pollution and traffic congestion. Limits should be imposed on the number of private vehicles that circulate and occupy public space, whilst public transport – rail, bicycle and pedestrian – should be heavily incentivised through the creation of protected cycle routes and footpaths, the use of eco-friendly means of transport and of collective, shared and public systems.

Pedestrian areas that cannot be accessed by private vehicles should be extended, designed and used since they represent an opportunity for developing both new and existing services and activities. Last but not least, these areas are places where people meet and socialise that is essential for fostering beauty and high standards of living in cities.



4

PROTECTING AND INCREASING THE CULTURAL CAPITAL, QUALITY AND BEAUTY OF CITIES

Cities are, and will remain, the main centres for preserving, protecting and enriching our cultural, historical, archaeological, architectural and artistic heritage, and this role is even more important in a globalised world, like the one we are living in. Such heritage constitutes a cultural capital that is not only valuable for creating local identity, but for all of humanity. It is essential to a city's beauty, liveability, wellbeing, atmosphere of hospitality and to the overall quality of regions. It is the basis of key economic activities pertaining to tourism, and for making cities – and all the economic activities they are home to – both attractive and of high quality.

Greater attention should be paid to ordinary city management activities, which have a significant impact on the quality, beauty and liveability of cities. Starting with the cleaning of all city streets and building facades; the proper maintenance of city parks, gardens and street furniture to the conservation and planting of new trees along streets and squares, right up to well-designed, high-performance street lighting systems.

Many different professions have developed in the field of cultural heritage conservation and enhancement. These are related to the renovation of historic city centres and smaller historic towns and villages, which not only should not be weakened, but instead, they need to be maintained, strengthened and enriched. On the other hand, when it comes to town and architectural planning, the will to integrate the same level of quality of our heritage in all urban fabrics and territories has been lacking.

Future improvements to the existing built heritage will have to avoid repeating the errors of the past, and should be combined with well-designed urban and architectural regeneration schemes. The lack of resources should be taken as an opportunity to do better. Architectural beauty and quality should not be considered luxury goods. If best practices and techniques – combined with policies offering subsidised loans, tax incentives and the cap of property values and rents – are implemented to restore the existing built heritage, this will make quality buildings accessible to everyone, including low income citizens, with affordable renovation and low management costs.

We can – and we must – meet the demand for housing and services without encouraging forms of speculative development, such those which have led to the construction of large and poorly manufactured estates that often remain empty or abandoned after just few years.

The time is ripe for public policies that are more attentive and for forward-thinking entrepreneurs who can make profits out of sustainable and high-quality eco-friendly construction works.



5

PROMOTING URBAN REGENERATION AND THE RENOVATION OF EXISTING ASSETS

The future of our cities depends on a radical urban regeneration and on a systematic maintenance. It lies on the regeneration, renovation, reuse and recycling of existing assets; suburban areas; spontaneous urban fabric; derelict industrial estates; abandoned military zones; railway property and port areas; and the many areas created by the chaotic expansion of contemporary cities and peri-urban agricultural areas that are no longer used for growing crops.

These areas and constructions occupy large swathes of our cities and, even though being a source of urban blight, if we go beyond the practice of fragmentary construction projects and limited renovations, they have the potential to become the focus of a system of integrated urban regeneration projects – a true alternative to the obsolete model of low-quality expansion.

Urban regeneration is an effective tool for the ecological conversion of cities, as long as it is not just limited to the reuse and recycling of urban scrap, when combined with a general ban on greenfield building, while meeting the demand for new housing by reusing brownfield sites and existing buildings.

Urban regeneration and the redevelopment of existing assets offer a historic opportunity to safeguard those cities that are more at risk from earthquakes and hydrogeological damage (like flooding and landslides), something that cannot be

postponed any more, and in a way that is no longer sporadic, inadequate and uncoordinated, or only carried out after catastrophic events. But rather, that it is systematically included in an integrated prevention programme that enhances the entire life cycle of urban areas and focuses on both safety and quality of cities.

At a time when public resources are limited, those available must be used as efficiently as possible. Furthermore, additional ones from all different levels – national, regional, and European – must be employed, as well as those that can be drawn from local taxation. Moreover, technically sound projects of urban regeneration, redevelopment and maintenance of existing assets are likely to promote interventions that attract private financing.

Any urban regeneration project requires the updates of town planning instruments, authorisation procedures, awarding schemes and the realization of interventions in order to speed up the decision-making process and to ensure that objectives are clear, more consistent and pertinent to citizens. In such context, today's available technology can foster total transparency and greater participation.



6

IMPROVING PUBLIC BUILDINGS WITH INNOVATIVE PROJECTS AND BY PROMOTING A LIFE-CYCLE APPROACH

The current trend in favour of the Green Public Procurement (GPP), adopted as policy by many different countries, should be promoted and sustained. The GPP applies one main principle: public administrations, at all levels, should lead by example. The adoption of minimum environmental criteria, which are increasingly included in many public procurement tenders, must become more binding and more incisive. Advanced ecological criteria should be state-of-the-art, both in terms of town planning and for any type of work carried out on old and new public buildings.

Long-term energy, ecological and bioclimatic regeneration programmes planned for the enormous range of public buildings types – from council buildings, schools, universities, hospitals and health clinics, to the headquarters of police and armed forces – are implemented to a minimal and inadequate extent because there is still a tendency to underestimate their benefits, despite being promoted by European regulations. It could in fact be a great opportunity to develop new techniques, to prompt investments and to support specialised and qualified companies with significant benefits for employment.

More attention should be paid to the quality of state school and university buildings, focusing on their educational prestige, on experimenting avant-garde and flexible design solutions and on the use of space and the extraordinary example that such improvements could provide in the process of changing our society.

The environmental renovation of public buildings, whether old or new, should be used to complete projects based on the Life-Cycle Thinking approach. Such projects are extremely innovative, able to deal with the processes that transform the built environment, from the scale of each single building to the town planning one, with an integrated vision. They can be an opportunity to try new techniques, materials and information management systems, while evaluating and improving social and economic performance, the flow of resources and environmental impacts, during every phase of the life cycle.

The life-cycle approach – an essential part of a circular economy – must be integrated in urban planning and construction industry processes, products and services, starting from the public sphere. This approach entails the evaluation of costs and economic benefits, both direct and indirect, in the mid and in the long term, reducing the risk of speculative activities based solely on short-term profit. Furthermore, it involves a greater ability to create synergies between public and private investments, encouraging the banking system to invest in projects of high environmental and energy quality.





PLANNING A DESIRABLE FUTURE FOR CITIES

The fields of architecture and urban planning need to find a new impetus to design a better and more desirable future for our cities. The integration of ecological, social and economic quality is the only way forward to a sustainable future. Planning and designing processes must pay attention to such an inextricable link, which is decisive for the future of our cities.

The city of the future has to strengthen networks and connections, promote research and eco-friendly innovation, test the preparation and implementation of programmes in order to become the hub of an economy based on knowledge and sustainability.

Buildings should be of a high environmental quality, with low ecological footprints, zero carbon emissions, bioclimatic performance, with lowest possible resource requirements and should be powered exclusively by renewable energy sources. Cities should be freed from the use of private cars and public transport networks should be completely revamped and sustainable.

Waste management should be included in a circular economy model that minimises the use of material and energy resources, aims at waste prevention and waste reduction, maximises reuse and recycling, and eliminates waste and waste disposal.

Peri-urban areas should be managed as if they were an ecological buffer to contain property development and eliminate land consumption in order to improve biodiversity, promote eco-systemic services, and develop systems of agricultural production with short supply chains.

The number of open spaces, parks, city squares and meeting places, not just in historic city centres but also in peripheral areas, should be increased and maintained with greater care, equipped with street furniture and services; improved by a search for bioclimatic quality and environmental comfort and through management methods that promote active wellbeing, sociability, cohesion and inclusion.

The presence of a high proportion of immigrants of different religions and cultures is an important factor that should be taken into account when considering the future of our cities. It should be shrewdly managed with a spirit of hospitality. It is important to work towards preventing the creation of pockets of illegality, offering low-cost housing that can also be reversible and temporary when it is necessary. Meeting places that favour positive, long-lasting relationships with the local population should also be created. The planned involvement of local and immigrant communities in the regeneration, renovation and reuse of run-down buildings and spaces must help prevent emergency housing situations for both immigrant and local low-income families.

Strengthening social inclusion processes is not only essential if we want to make cities more ethical, it will also help build a better, safer and more desirable future for everyone.



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