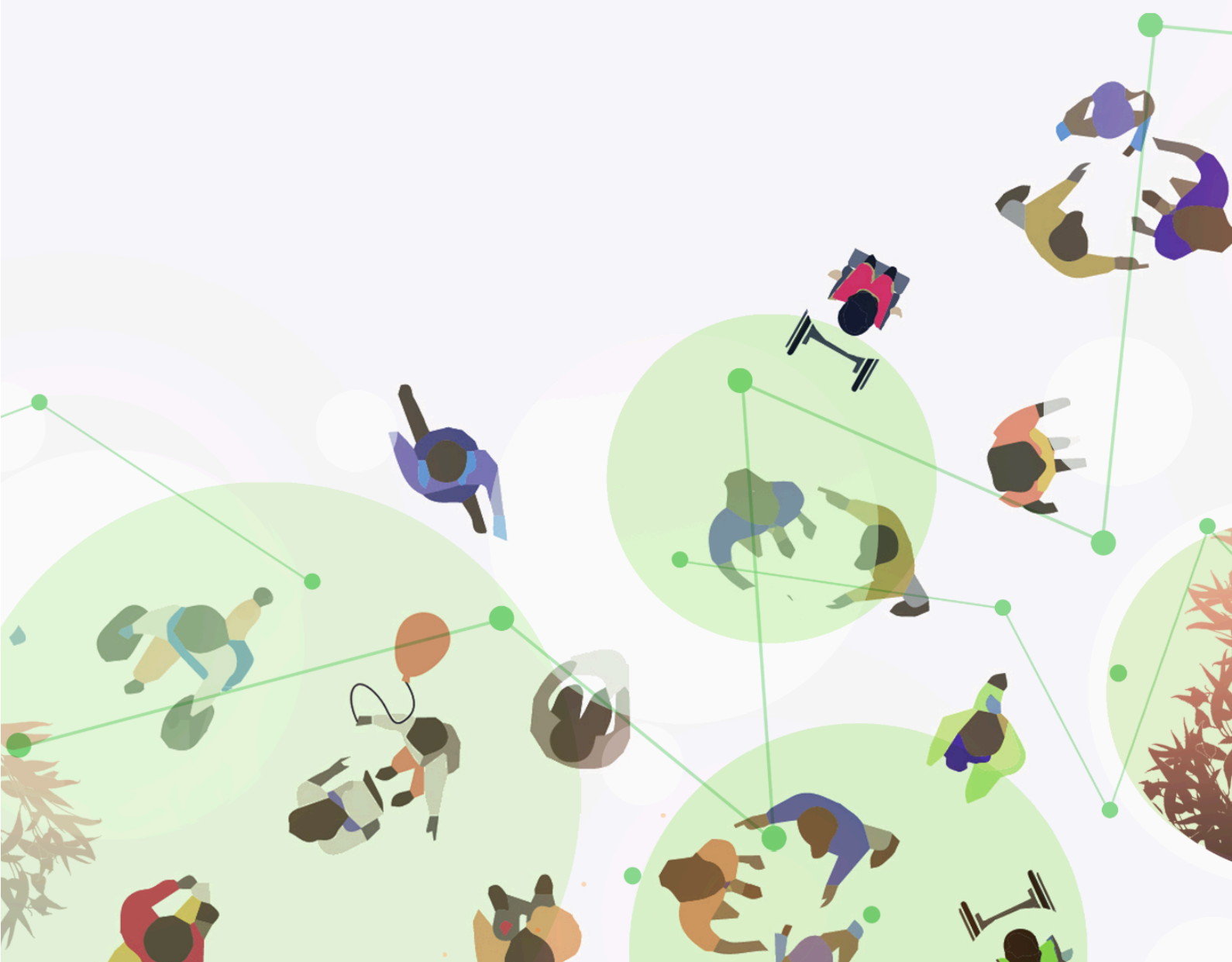




Urban green spaces for inclusive wellbeing: a path of co-creation

REPORT



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This document seeks to use inclusive language that respects gender differences. However, when it was not possible to find a stylistically appropriate neutral formulation, the masculine form was used, in accordance with traditional Italian linguistic conventions.

Executive Summary

The Health Community Lab (HCL) on well-being in the urban green areas of District 1 (Q1) of the city of Florence has promoted **a co-creation process to transform urban green spaces into a real infrastructure for health, socialising and equity**. Through three focus groups involving 33 local organisations and a co-creative workshop with institutions and citizens' associations, the project identified the community's priority needs (free, accessible and safe public spaces, especially for the elderly, caregivers, young people and vulnerable individuals) and developed a **shared action plan for the management and use of the former Camping Michelangelo area**, including proposals such as: lightweight furniture, shade and water, improved accessibility to local public transport, a shared calendar of activities and forms of civic co-management of the park.

The demographic context of District 1 (63,528 residents; 24.9% over 65; 60.9% single-person households; 22.6% foreigners) requires local spaces that combat loneliness and fragmentation and reduce physical, economic and perceptual barriers to the use of green spaces. Scientific evidence and international guidelines (WHO, 2017) confirm that **well-designed and participatory green spaces improve physical and mental health, social cohesion and climate resilience**; to maximise impact, proximity, safety, shade/water, essential services and active community involvement are needed.

The results show high interest and good agency on the part of the actors involved, but also some critical issues: a fragmented network of associations, uneven operational commitment and infrastructural obstacles (accessibility, toilets, transport). Hence the recommendations: establish stable **participatory governance** (committee/umbrella association), define **minimum standards of usability**, activate **intergenerational programmes** and initiate light and continuous monitoring of well-being, agency and use of spaces to guide adjustments.

Key Messages

- **Green spaces as infrastructure for health and equity:** participatory design, lightweight furnishings, shade and water transform the former Camping Michelangelo into a climate refuge and a place of daily wellbeing.
- **Equity first:** priority given to vulnerable groups (the elderly, carers, the frail) and to barriers that are relevant today (perceived safety, physical and economic accessibility).
- **Enabling governance:** co-management committee, shared calendar, adoption of spaces and streamlined procedures to move from ideas to action.
- **Connections that matter:** green corridors and improved transport networks to connect parks, schools and services; the network of associations must be made less fragmented and more collaborative.
- **Measuring to improve:** continuous monitoring of well-being, agency and use in order to adapt and apply to different realities and contexts.

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1. Introduction

Fair and universal access to urban green spaces is now recognised as an international priority, as these places are a pillar of urban well-being (United Nations, 2015). Parks, gardens, and tree-lined areas not only improve the environmental quality of urban areas, but also have a direct impact on physical and mental health, stimulate social interaction in neighbourhoods, and promote social inclusion and cohesion when designed and managed in a participatory manner. Green spaces can become real drivers of empowerment, offering people greater opportunities to influence the contexts in which they live and guide their development according to local needs. With this in mind, urban policies dedicated to the planning, design and management of public green spaces must be multidimensional and aim to expand the substantive freedoms of all, according to Amartya Sen's *capability* approach (1999). Furthermore, reconciling cities and nature means systematically integrating green spaces into our habitat, remembering the interdependence between human life and vegetation. Urban environments exert strong evolutionary pressures, especially on flora: adaptations can promote survival, but also increase genetic isolation and reduce resilience to future environmental or human-related shocks (Mancuso, 2023).

The Health Community Lab (HCL) on the co-creation of green spaces in Florence aims to improve the quality of life of citizens in the city's District 1 (also called Q1) by promoting greater use of green spaces through co-creation.

The Tuscany Health Ecosystem and the Health Community Lab

The *Tuscany Health Ecosystem (THE)* is a research project promoted **by the Tuscany Region and all Tuscan universities**, including the University of Florence, funded by the MUR (Ministry of University and Research) through the National Recovery and Resilience Plan (PNRR funded by the European Union - Next Generation EU, Mission 4, Component 2, CUP B83C22003920001). THE has been **divided into 10 macro research themes**, assigned to the spokes, all related to life sciences issues. In particular, spoke 10 has been named 'Population Health'. The universities and public and private bodies participating in spoke 10 (Scuola Superiore Sant'Anna, University of Florence, University of Pisa, University of Siena, University for Foreigners of Siena, Dedalus spa) aimed to **integrate methods and tools to improve the ability to implement the innovations that will be introduced in the coming years in our health service**, especially through the involvement of the population and the community.

The Department of Economics and Management (DISEI), together with the Department of Architecture (DIDA), the Department of Education, Languages, Intercultural Studies, Literature and Psychology (FORLILPSI), and the Department of Health Sciences (DSS), conducted research in the field of '*Community engagement and social innovation for health and well-being of individuals and territories*', developing the **Health Community Lab (HCL)** methodology, i.e. a collaborative space involving citizens, institutions, businesses and universities to **co-create innovative solutions dedicated to the health and well-being of a community or territory**. As part of the project, each HCL developed tested the methodology in different contexts (for further information, see Biggeri et al. 2025a and Biggeri et al. 2025b), specifically testing certain parts of the

process. The HCLs have therefore made it possible to **verify and refine the methodology through concrete cases**, even though these are **partial applications**, limited to specific areas, problems or topics of intervention.

The objective of each HCL is to overcome the limitations of a top-down approach and to build shared solutions through the involvement of a plurality of actors: public institutions, organised civil society, universities and industry. This approach is in line with the 'quintuple helix' model (Biggeri et al., 2023; Carayannis and Campbell, 2010; Carayannis et al., 2012), which expands the traditional paradigm of innovation based on universities, businesses, government and civil society (quadruple helix), integrating the natural environment as a fifth dimension (Biggeri et al., 2023). This perspective highlights the value of place-based knowledge as a key resource in generative and transformative processes, leveraging both human capital, understood as the wealth of knowledge, experience and skills of local communities, and natural capital, i.e. the set of environmental resources that characterise territories (Biggeri, Bormolini, Guarini, 2025). In this vision, ecology, knowledge and innovation intertwine, generating synergies between the economy, the environment, society and democracy (Provenzano et al., 2016, 2020a, 2020b; Biggeri, Bormolini, Guarini, 2025), where social innovation takes shape thanks to the synergistic and participatory contribution of all segments of society (public, private, civil and academic).

The initiative adopted an approach for raising awareness of the value of green areas and their contribution to the well-being of the population. For this reason, the project was developed in collaboration with District 1 and the network 'Salute è Benessere: percorsi di salute nella città di Firenze' (Health and Wellbeing: health pathways in the city of Florence), a community project promoted by the Florence Health Authority which promotes health and prevention in the city's five districts through the involvement of citizens and local organisations. The HCL promoted collaboration between the various stakeholders¹: local administrators, the health district, the local health authority, healthcare professionals, associations and third sector organisations, and the resident population - in order to analyse the main critical issues affecting the well-being of the population in the district and understand how to implement solutions for the greater use of green spaces.

In particular, the HCL set itself the following objectives:

1. To identify the health and wellbeing needs in District 1 and the critical issues associated with the use of green areas, gathering the views of residents and social and health associations active in the area;
2. Develop a shared action plan to improve the liveability and usability of the former Camping Michelangelo area through a participatory process. The action plan is the

¹ A stakeholder is an individual, group of people or organisation actively involved in an initiative, whose interests are negatively or positively affected by the outcome of the initiative's implementation or progress, and whose actions or reactions in turn influence the stages or completion of a project or the fate of an organisation. See: <https://dictionary.cambridge.org/dictionary/english/stakeholder>

operational and implementation tool aimed at defining the concrete actions necessary to achieve the objectives of managing and enhancing the area.

The primary beneficiaries of the project were the social and health associations of Q1, while the indirect beneficiaries were the residents of the neighbourhood, the ultimate beneficiaries of a healthier, more inclusive and liveable environment.

This report is divided into six sections. Chapter 1 introduces the objectives and aims of the study, while Chapter 2 explores the role of urban green spaces and their related benefits. Chapter 3 presents the context analysis, followed by Chapter 4, which describes the methodology adopted and the operational phases of the work. Chapter 5 presents the results, while Chapter 6 offers a concluding summary and proposes operational recommendations.

2. The role of green areas in urban contexts

2.1 Capability approach and co-design

Cities are now at the centre of global transformations: on the one hand, they are drivers of economic growth and innovation; on the other, they are places of stark inequality. About a quarter of the world's urban population, especially in the global South, lives in informal settlements with limited access to basic services (Anand, 2018). Even in more developed contexts, cities face urgent challenges related to congestion (*commuting, overtourism*), housing emergencies, social exclusion, security and the effects of climate change.

In this complex scenario, urban policies must adopt an integrated and multidimensional approach, capable of bringing together economic development, social inclusion, environmental sustainability and quality of life. One possible interpretative key is offered by Amartya Sen's *capability* approach (1999), which proposes to assess the well-being of individuals and communities not on the basis of available goods or resources, but on the basis of the real substantive freedoms they possess to lead the lives they have reason to value.

The Capability Approach

The capability approach, developed by Amartya Sen (1999), is a conceptual framework that defines development and well-being not in terms of wealth or resources, but in terms of real freedoms.

- **Capabilities** (Real Opportunities and Abilities): These are the real opportunities/abilities and substantial freedoms that a person has to do and be what they have reason to value (e.g. having the opportunity to be healthy, to access quality social and health services, to be educated (in health *literacy*), to participate in decision-making).
- **Functioning**: These are the states and actions that an individual actually achieves (e.g. being well nourished, participating in a debate).
- **Agency**: This is the ability of individuals to act and bring about change based on their own goals concerning their own well-being and that of others.

The approach emphasises that **participation** (in politics and various decision-making processes) **has intrinsic and instrumental value**, as it expands human freedoms and individual and collective *empowerment*. *Capabilities* are highly dependent on conversion factors that are personal, territorial and contextual (similar to the social determinants of health), making the removal of local barriers crucial for full well-being.

Applied to the urban context, this approach allows cities to be seen not only as productive or technological spaces, but as environments capable (or not) of expanding the opportunities and *agency* of all citizens, including the most vulnerable groups such as women, children, the elderly and people with disabilities. It then becomes essential to ask how cities can

contribute to overall wellbeing, health, inclusion, the strengthening of social bonds and spatial justice (Anand, 2018).

In this sense, the *capability* approach is enriched by the contributions of Samuels (2005) and Khosla (2002), who propose an analysis of urban policies through the framework of the five freedoms identified by Sen (1999) (Anand, 2018):

- 1) Political freedoms: the opportunity to participate in decision-making processes, including through innovative tools such as participatory workshops and co-creation practices (e.g. the project described in this report);
- 2) Economic opportunities: access to decent work, resources, property;
- 3) Social opportunities: access to education, health, gender equality and services that promote well-being, such as urban green spaces;
- 4) Transparency guarantees: functioning institutions, absence of corruption, access to justice;
- 5) Protective security: presence of support networks, resilience mechanisms and protection for the most vulnerable.

The goal, therefore, is not only to make cities more efficient, but to address the issues that prevent many people from leading full and dignified lives (Anand, 2018).

In this perspective, participatory co-creation processes play a crucial role. Not only do they guarantee greater political freedom, allowing citizens to actively contribute to decision-making processes, but they also strengthen transparency guarantees by involving a variety of actors and institutions. Co-creation thus becomes a concrete tool for expanding collective and individual *capabilities*.

A prime example of this is urban green spaces. In addition to their environmental value, they have an instrumental value, constituting a fundamental social opportunity, as they contribute to physical and mental well-being, stimulate social interaction in neighbourhoods and promote inclusion and social cohesion. When designed and managed in a participatory manner, green spaces become places of *empowerment*, strengthening citizens' *agency* and responding more effectively to local needs.

2.2 Social, health and environmental benefits

Equitable and universal access to green spaces is now recognised as an international priority. The United Nations Sustainable Development Goal 11, 'Make cities and human settlements inclusive, safe, resilient and sustainable', aims, with target 11.7, to 'ensure universal access to safe, inclusive and accessible green spaces and public spaces, in particular for women, children, older persons and persons with disabilities' (United Nations, 2015).

Evidence from the Florence metropolitan area confirms that the presence of urban green spaces has measurable effects on the local climate, air quality and public health. These studies highlight how urban (and peri-urban) greenery is crucial for mitigating the impacts of climate change and air pollution: vegetation absorbs and stores CO₂ (carbon dioxide), mitigates heat islands (Francini et al., 2024), removes key health pollutants such as PM10

and O₃² (Bottalico et al., 2016), and how better quality urban greenery can help prevent deaths among the over-35s (Burbui et al., 2025).

In addition, urban green areas, such as parks, gardens and tree-lined public spaces, have a positive impact on health in several ways: by reducing stress, stimulating physical activity (Hartig et al., 2014) and promoting mental well-being (WHO, 2021). Consequently, they increase both the well-being and *capabilities* of the people who use them. Specifically, scientific literature indicates that a greater presence of greenery within 1–3 km of the home is associated with better perceived health, especially in highly urbanised areas (Maas et al., 2006). This effect is particularly relevant for older people, young people and people with low socioeconomic *status*, i.e. groups that tend to spend more time in their local environment (Maas et al., 2006). Furthermore, the presence of green areas can strengthen social cohesion. Parks and gardens offer informal and free settings for interaction between people of different ages, cultures and socio-economic *backgrounds*, thus helping to strengthen the social fabric and combat isolation (Jennings and Bamkole, 2019). However, these benefits are only fully realised when green spaces are well distributed, safe and easily accessible to all sections of the population. Effective planning therefore needs to address not only environmental aspects, but also social and distributional factors, to prevent green spaces from becoming unintended drivers of exclusion or gentrification. Finally, as highlighted in the *European Environment Agency's* (EEA, 2020) report *Healthy environment, healthy lives*, although the use of green spaces is mainly determined by their availability, accessibility and proximity, factors such as the perception of safety (especially for women and the elderly), cleanliness, and the presence of architectural elements such as benches, parking spaces and toilets play a crucial role in determining their actual use. Specifically, shaded areas, equipped play areas and the possibility of organised activities are fundamental elements for parks and gardens to become places capable of strengthening social cohesion (Jennings and Bamkole, 2019).

To ensure that the benefits of urban green spaces are maximised, it is essential to involve the community in the design of these spaces, taking into account their specific needs. The *World Health Organisation* (WHO) guidelines (WHO, 2017) emphasise that the redevelopment and creation of green spaces have a greater impact when accompanied by active citizen involvement. Design should involve various stakeholders, through collaboration between local authorities, private actors and citizen groups, in order to improve the quality of interventions and ensure that projects are implemented that respond to the needs of the community (WHO, 2017).

² PM10 refers to fine dust particles suspended in the air with an aerodynamic diameter of less than 10 µm (micrometres, one millionth of a metre), capable of reaching the upper airways. They are harmful to human health and can be of natural origin (volcanoes, fires, pollen) or anthropogenic origin (traffic, industrial activities, heating). O₃ is ozone, which is a pollutant at ground level and a strong oxidant that can cause problems for the eyes, respiratory tract, plants and certain materials.

3. Context analysis: District 1 of Florence

District 1 (Q1) of Florence has over 63,500 residents (Municipality of Florence, 2024). The demographic structure shows a clear prevalence of people in the 15-64 age group, who represent about 65.4% of the district's population, indicating a significant presence of people of working age. The proportion of elderly people is significant, at 24.9%, about a quarter of the district's population, underlining the importance of ensuring adequate health and social services to support the well-being and independence of this group.

Resident population in Q1 broken down by age group		
Age group	Units	Percentage
0-14	6,179	9.7
15-64	41,516	65.4
65 and over	15,833	24.9
Total	63,528	100

Table 1 - Resident population in Q1 broken down by age group (Source: our analysis of data from the Municipality of Florence, 2024).

Looking at the composition of households, there is a high incidence of single-person households: 22,377 households out of a total of 36,742, or 60.9%, are composed of a single person. This data suggests a social fabric composed largely of single people, students or elderly people living alone, highlighting the need for social policies aimed at combating isolation and promoting community cohesion. However, it should be noted that, in the absence of accurate data, it cannot be ruled out that part of the population residing in District 1 does not live there permanently, maintaining their residence for reasons other than housing. At the same time, the urban context of the neighbourhood is strongly influenced by *overtourism and* real estate pressure, which make it difficult for many families to buy or rent a home, as well as reducing the availability of spaces and services dedicated to children and stable community life. These factors contribute to a progressive decline in the presence of families and the prevalence of temporary or single-person households.

Another distinctive feature of District 1 is the significant presence of residents of foreign origin, who make up 22.6% of the total population, a percentage significantly higher than in other city districts. This reflects the multicultural nature of the district and highlights the importance of effective strategies for promoting ethnic and cultural diversity.

Percentage of foreigners in the population of each neighbourhood		
Neighbourhood	Total	of which foreigners
1	17.3	22.6
2	24.5	12.9
3	11.0	12.0
4	18.2	12.8
5	29.1	18.7
Total	100	16.2

Table 2 - Percentage of foreigners in the population of each neighbourhood (Source: our analysis of data from the Municipality of Florence, 2024).

According to data from the 2021 ISTAT Census, the employment rate among 15- to 64-year-olds in Q1 is 65.7%, slightly lower than in other neighbourhoods. In terms of the population's level of education, approximately 67.5% have at least a high school diploma, and 33.4% have a university or tertiary degree.

In this context, urban green areas are a fundamental social opportunity, contributing to physical and mental well-being, stimulating social interaction and promoting social inclusion and cohesion. In light of the benefits associated with the presence of urban greenery and in accordance with international guidelines, the Municipality of Florence has adopted strategies and tools for the management and enhancement of urban greenery through the drafting of an Urban Greenery Plan (Municipality of Florence, 2025).

Figure 1 shows the distribution and quality of urban green spaces in Florence, obtained using the Normalised Difference Vegetation Index (NDVI), an indicator used in remote sensing to measure the condition and quantity of vegetation on a land surface³. District 1 of Florence (the historic centre and the centre of the maps) has a high rate of urbanisation and relatively low NDVI values.

Despite the high concentration of buildings and the presence of small, scattered green areas with moderate vegetation density and health, at the extremes of this district we find two strategic points relating to greenery: the Cascine Park and the San Niccolò-Piazzale Michelangelo area (NDVI values between 0.6 and 0.8), which act as the 'lungs' of the district, if not the entire city of Florence.

³ More specifically, NDVI is calculated from reflectance values in the near infrared (NIR), which healthy vegetation reflects strongly, and in the visible red (RED), which is strongly absorbed by chlorophyll. The values range from -1 to +1. Values close to 0 or negative indicate the absence of vegetation (water, rocks, bare soil). Positive and high values (0.6–0.9) correspond to dense, healthy vegetation.



Figure 1 - NDVI of the Municipality of Florence and green areas (2021) and neighbourhood boundaries. Source: Authors' processing of COPERNICUS data (Fondazione Futuro delle Città) and Open Data from the Municipality of Florence (dataset: Neighbourhood Areas for administrative boundaries).

4. Methodology

HCLs are based on the concept and rules of *the Living Lab*⁴ (Leminen *et al.*, 2012), i.e. an innovation environment in which citizens, businesses, universities and public bodies co-create innovative solutions and apply them in real-life situations. Each HCL represents an innovation project in which these actors collaborate, co-create and implement initiatives and solutions related to the health and well-being of a given community⁵. The main theoretical reference is the perspective of sustainable human development (Biggeri *et al.* 2023), which recognises the centrality of the individual and the community in transformation processes, based on five pillars - *productivity, equity, environmental sustainability, participation & empowerment, human security* - while emphasising the role of human *collective agency*, which is expressed through interactions between different social actors and guides transitions towards sustainability.

The methodology is divided into three phases:

1. *Preliminary phase*: begins with the identification of needs related to a specific health or well-being issue (*conceptualisation*), followed by a context analysis in which the key stakeholders to be involved in the subsequent phases are identified and data useful for the successful implementation phase is collected (*context analysis and planning*).
2. *Implementation phase*: consists of the co-creation of a prototype together with the stakeholders identified in the previous phase (*design*).
3. *Evaluation phase*: this involves evaluating the process, the prototype created, as well as the dissemination, possible scalability and maintenance over time of the solutions developed, with particular attention to their sustainability.

The structure of the paragraph follows the three operational phases of the project: preliminary phase, implementation phase and evaluation phase, providing details for each phase on the activities carried out, the actors involved, and the data collection and analysis techniques used. Paragraph 4.1 is dedicated to the design of the study, while sub-paragraphs 4.1.1, 4.1.2 and 4.1.3 present the three phases of the project respectively. Each phase is analysed from both an operational and methodological point of view in order to provide a clear and systematic overview of the participatory process undertaken. A short final section is dedicated to ethical aspects.

What is co-creation?

Co-creation is an approach based on **active collaboration between a plurality of stakeholders** (Vargas *et al.*, 2022), aimed at **the creative resolution of shared problems** (McCaffrey *et al.*, 2025; Messiha *et al.*, 2023). This process develops throughout all stages of the initiative, from the exploration and identification of needs or

⁴ According to the European Network of Living Labs (ENoLL), *Living Labs* are '[...] user-centred, open innovation ecosystems based on a systematic user co-creation approach, integrating research and innovation processes in real-life communities and settings'. See: <https://enoll.org>

⁵ For more information on HCLs, see Biggeri *et al.* 2025a

critical issues to the design, implementation and evaluation of solutions or interventions.

In recent years, co-creation has become increasingly important in the context of strengthening health systems. In its global strategy for integrated health services 2016-2026, the World Health Organisation (WHO) promotes a co-creative process for the development of integrated and people-centred health services through the involvement of governments, service providers and citizens (WHO, 2015). Co-creation therefore plays a central role in this area, as **the challenges faced by contemporary public systems, often characterised by increasing social complexity, require the active involvement of a wide range of social actors in public governance** (Torfing & Ansell, 2021).

What is the difference between co-planning, co-design and co-creation?

Co-programming and co-design (Art. 55, Legislative Decree 11/2017) are structured and regulated forms of public-third sector or public-citizen collaboration, while co-creation is a more recent and broader concept that takes on a wider, horizontal and participatory dimension involving all stakeholders - users, communities, professionals, institutions and research.

- **Co-planning** refers to the phase in which administrations and other actors jointly identify needs, priorities, methods of intervention and resources.
- **Co-design** concerns the following phase, in which the actors involved define and implement specific projects or interventions on the basis of shared planning.
- **Co-creation** goes even further: it involves the participation of all actors from conception, design, implementation and evaluation, with the aim of generating together.

4.1 Study design

Following the HCL approach, the study was divided into three main phases.

In the first phase (preliminary phase), three Focus Groups (FGs) were set up with associations in District 1, with the aim of identifying the main needs related to residents' well-being (Kitzinger, 1995). The results were compiled in a report (attached in the Appendix) and presented at a feedback meeting held on 13 May 2025 in the Infopoint conference room.

In the second phase (implementation phase), discussions were initiated with the authorities of District 1 and the Municipality of Florence, who supported the research group in identifying a green area on which to focus the project's actions: the former Camping Michelangelo. A co-creative workshop was then organised, carried out through a FG, with citizens, institutions and associations, which led to the definition of a shared action plan to improve the liveability and usability of the park. At the end of the workshop, participants were given a form prepared by the research group, through which each association was able to formalise its proposals.

Finally, in the third phase (evaluation), workshop participants were given a participatory questionnaire.

HCL phase	Prototype creation activities	Actors involved			
		Public actors	Private actors	Research bodies	Civil society
Preliminary phase	Conception	x		x	
	Context analysis and planning	x		x	
Implementation statement	Design	x	x	x	x
Evaluation phase	Distribution/ Dissemination	x	x		x
	Evaluation			x	
	Maintenance	x	x		x

Table 3 - Stakeholders involved in the HCL phases (elaborated from Laurisz et al. 2023).

HCL phase of HCL	No. of participants	Gender	Age Average	Age range	Age	Role
Preliminary phase	33	14F/19M	54	16-79	8 < 35 13 (35-65) 12 > 65	Representatives of Q1, ETS, organised civil society
Implementation phase	9	5F/4M	58	30-79	1 < 35 5 (35-65) 3 > 65	Representatives of Q1, ETS, organised civil society

Table 4 - Socio-demographic characteristics of HCL participants.

4.1.1 Preliminary phase

The preliminary phase was carried out in collaboration with the Local Health Authority (AUSL) of Central Tuscany, the Health and Wellbeing Group, District 1 and the University of Florence.

In order to analyse the health needs of District 1, the District and AUSL Toscana Centro selected and invited local associations operating in the social and health sector to participate in three FGs, which took place simultaneously on 30 January 2025. In order to ensure in-depth discussion and encourage participants to express themselves freely, the groups were organised in a heterogeneous manner (in the case of several people from the same

association, the participants were divided between the groups). The three FGs were held on 30 January 2025, in the evening, at the headquarters of District 1, involving 33 participants (14 men and 19 women) from 19 associations, several high schools and the district's health services, divided into three groups of 10 and 11 people each. Each FG lasted 2 hours and was led by a facilitator, with an observer present.

The FG outline was structured around four main themes, corresponding to the four components of SWOT analysis (strengths, weaknesses, threats, opportunities), in this case referring to well-being in Q1 of Florence:

- a) Strengths and opportunities for health in Q1;
- b) Weaknesses and threats to health in Q1: this section explored whether these obstacles had a greater impact on certain groups of people;
- c) Places for socialising in Q1 and green areas;
- d) The future of Q1.

Finally, following the FGs, a questionnaire was sent to the participating associations and organisations with the aim of mapping areas of intervention, institutional and inter-association collaborations, as well as involvement in initiatives to promote wellbeing.

The FGs were transcribed in full (verbatim) and analysed using deductive thematic analysis, following SWOT analysis. SWOT analysis, also known as the SWOT matrix, is a strategic planning tool used to assess the strengths, weaknesses, *opportunities* and *threats* of a project, business, territory or any other situation in which an organisation or individual must make a decision to achieve a goal (Sooampon, 2025).

In this case, the SWOT analysis made it possible to identify both internal and external factors in District 1 that influence local well-being, either positively or negatively. All the elements that emerged were then organised within a matrix and explored in depth through a narrative discussion, which can be found in the appendix. This approach provided an overall view of District 1 in relation to the theme of wellbeing, authentically reflecting the voices and contributions of the FG participants.

4.1.2 Implementation phase

During the implementation phase, discussions were initiated with the authorities of District 1 and the Municipality of Florence, who supported the joint identification of the green area on which to focus the project's actions: the former Camping Michelangelo.

This was followed by a two-hour co-creative workshop, in the form of a FG, with citizens, District 1 institutions and associations, hosted in the Infopoint conference room. Nine people (five women and four men) participated in the meeting.

The aim of the workshop was to define a shared action plan to improve the liveability and usability of the park, identifying both the activities to be promoted and the critical issues to be addressed in order to make them feasible. The guiding questions stimulated reflection on the possible ways of using the park, the activities that the associations present would like to propose, the additional entities to be involved, the operational critical issues and the coordination methods to be adopted.

At the end of the workshop, participants were given a form, specially prepared by the research group, through which each association was invited to formalise its proposals. The

form served to systematise the proposals of the social actors involved in the participatory process and to involve any additional associations interested in the topic.

The workshop was analysed using thematic analysis, which made it possible to identify and summarise the main categories that emerged from the discussion. Based on the results, a shared action plan was drawn up, divided into three areas of intervention: suggested activities, structural and organisational actions, and activities promoted by the associations. In a subsequent phase, the plan was further enriched by proposals collected through a dedicated form, distributed to participants at the end of the meeting, in order to integrate additional ideas and support from the local associative fabric.

4.1.3 Evaluation phase

During the workshop, participants were given two online questionnaires to complete at the beginning and end of the meetings (Participation Questionnaire). The questionnaire aimed to detect changes in participants' perception of agency and to assess their level of satisfaction with the experience. Each response was recorded using an anonymous code. The three areas assessed were as follows:

- level of agency;
- satisfaction with the activities undertaken;
- perception of the elements that impact the creation of an urban green space.

The responses were coded using 5-point Likert scales. The concept of agency refers to an individual's ability to act deliberately to pursue goals that they have reason to value. In other words, a person is an *agent* (agency) when they are able to make autonomous decisions and actively influence their own life and the surrounding reality, based on their own values, preferences and goals (Crocker & Robeyns, 2009).

4.2 Ethical Protocol

All participants received oral and written information about the study, its objective, research design and privacy, with the opportunity to ask questions and withdraw from the study at any time. Written informed consent was obtained prior to their inclusion in the study.

5. Results

This chapter presents the outcomes of the three phases that made up the co-design process. The first part reports the results of the preliminary analysis, dedicated to exploring perceived well-being and mapping the associative network of District 1 of Florence. The second part illustrates the results of the implementation phase, developed through a co-creative workshop involving citizens, associations and institutional representatives, aimed at jointly defining an action plan for the enhancement of a green space in the neighbourhood. The third part describes the prototype generated, in the form of a shared action plan. Finally, a summary of the participatory evaluation conducted through a questionnaire is presented.

5.1 Results of the preliminary analysis

Interviews conducted with residents and local organisations in District 1 of Florence reveal a complex picture of perceived well-being in the historic city centre, characterised by the presence of essential resources but also by significant critical issues.

The quality of life in District 1 is considered high in terms of the abundance and proximity of essential services and the presence of pedestrian areas, which promote greater liveability of urban spaces. Social spaces, such as libraries, play centres, bars and cafés, museums, cinemas, gardens and cultural centres, are perceived as fundamental resources for community life in the neighbourhood, as they encourage people to meet, promote social cohesion and provide access to culture.

Although the neighbourhood has numerous spaces for socialising, there is a lack of safe and free intergenerational meeting places, particularly for the most vulnerable groups (the elderly, children, people with disabilities); poor architectural accessibility and limited public transport efficiency, which compromise the mobility of those with mobility difficulties, a particularly significant issue given the high percentage of elderly residents in the neighbourhood; the perception of insecurity in some areas; loneliness, which is widespread among the elderly but also among young people, who often lack structured spaces where they can meet; the increase in the cost of living, particularly rents; environmental and noise pollution.

In this context, local associations remain a pillar of the community fabric, with a widespread and active network of volunteers who, through events and services, foster links between citizens, institutions and organisations. At the same time, there is a growing problem in the generational turnover of volunteers: young people only participate sporadically and informally, putting the continuity of the services offered by associations at risk.

Overall, the population of District 1 expresses a strong need for free, accessible and safe public spaces that can promote neighbourly relations and collective well-being. Improving the well-being of residents appears to be closely linked to the possibility of making public gardens and parks more accessible and inclusive. Focus group participants expressed a desire to make greater use of green spaces, but highlighted a number of critical issues: the scarcity of green areas, which are often privately owned; difficult accessibility; a widespread perception of insecurity and degradation, especially in the evening hours; management problems and conflicts of use; and a perception of bureaucratic slowness and inefficiency in administration and redevelopment processes. This picture confirms the urgent need to invest in inclusive, safe and accessible green spaces, which is the starting point for this project.

5.1.1 The network of associations in Q1

As part of the survey on well-being in District 1 of Florence, a questionnaire was administered to associations and organisations operating in the area, with the aim of mapping areas of intervention, institutional and inter-association collaborations, as well as involvement in initiatives to promote well-being. Although the number of responses was not high, as only 14 organisations responded, the information gathered provides a general overview of the connections between the associations operating in Q1 and the dynamics of the area.

The organisations that participated are mainly involved in health, prevention, support for the vulnerable and the promotion of social cohesion. The initiatives described range from health and psycho-educational activities to projects to combat urban decay, support vulnerable people and strengthen local networks. Analysis of the responses shows that none of the associations involved explicitly indicated a direct commitment to the management, care or enhancement of the neighbourhood's green areas.

Green areas are places that can be made accessible, open and inclusive, with a still largely unexplored potential for health, socialising and inclusion. It is therefore essential to exploit the synergies between associations, citizens and institutions, with the aim of making the green spaces of District 1 more lively, participatory and oriented towards the well-being of the whole community. For this reason, based on the responses obtained, two network graphs were constructed to analyse the structure of the relationships that emerged.

As regards relations between associations alone⁶, the network (Figure 2) appears highly fragmented and characterised by a lack of overall cohesion. The associations tend to group together in small isolated clusters, within which there is a certain degree of collaboration, but which are little or not at all connected to each other. Most associations connect with a very limited number of other entities. This picture suggests that collaboration mainly takes place within small circles and that there is a general difficulty in building broader, cross-cutting relationships.

⁶ The questionnaires can be used to analyse the connections between associations and between associations and institutions, using social network analysis, which was used to generate the two graphs in Figure 2 and Figure 3.

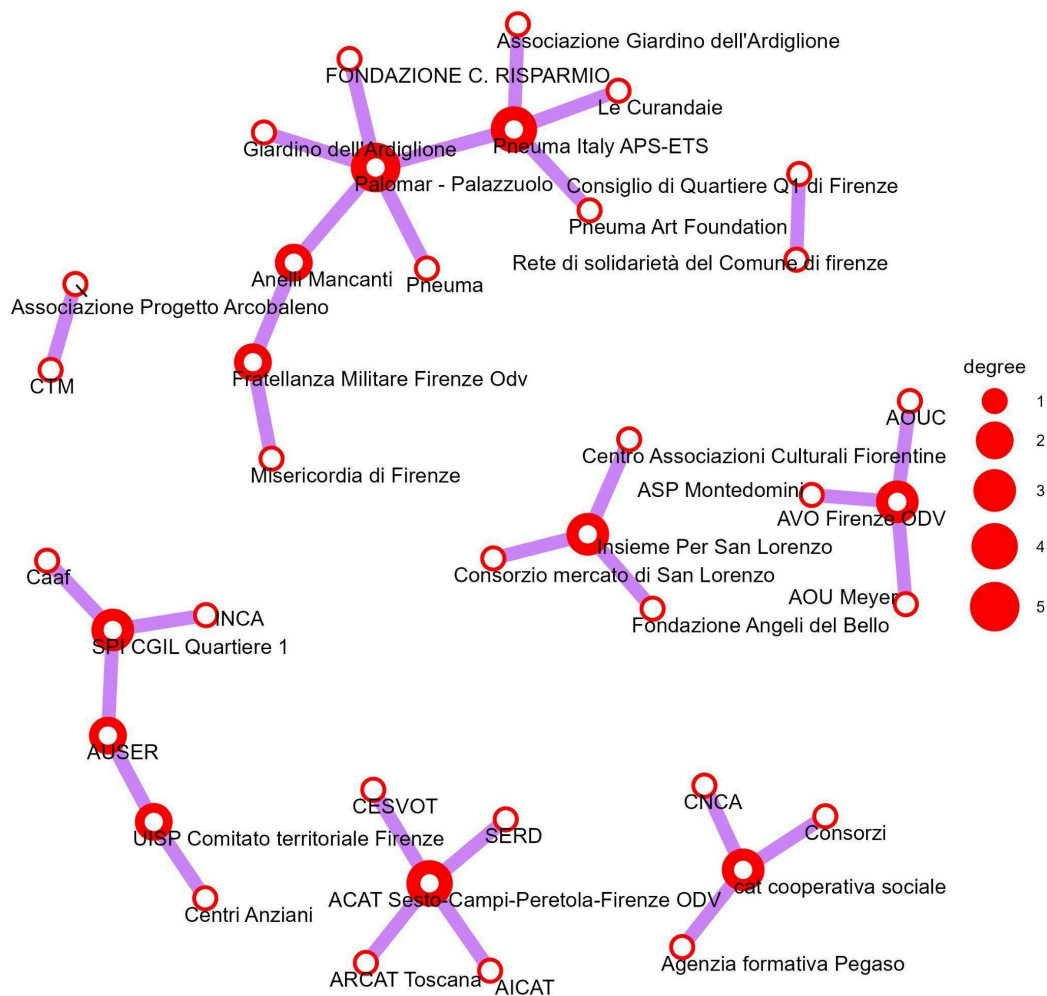


Figure 2 - Network of associations involved in HCL (Source: our analysis of data collected through the survey. No. of observations=14)

If we look instead at the relationships between associations and local government (Figure 3), a greater number of connections emerge. The administration acts as a central hub connecting numerous associations. However, this structure also highlights the associations' strong dependence on the public body: many relationships are developed through the administration and not directly between the associations.

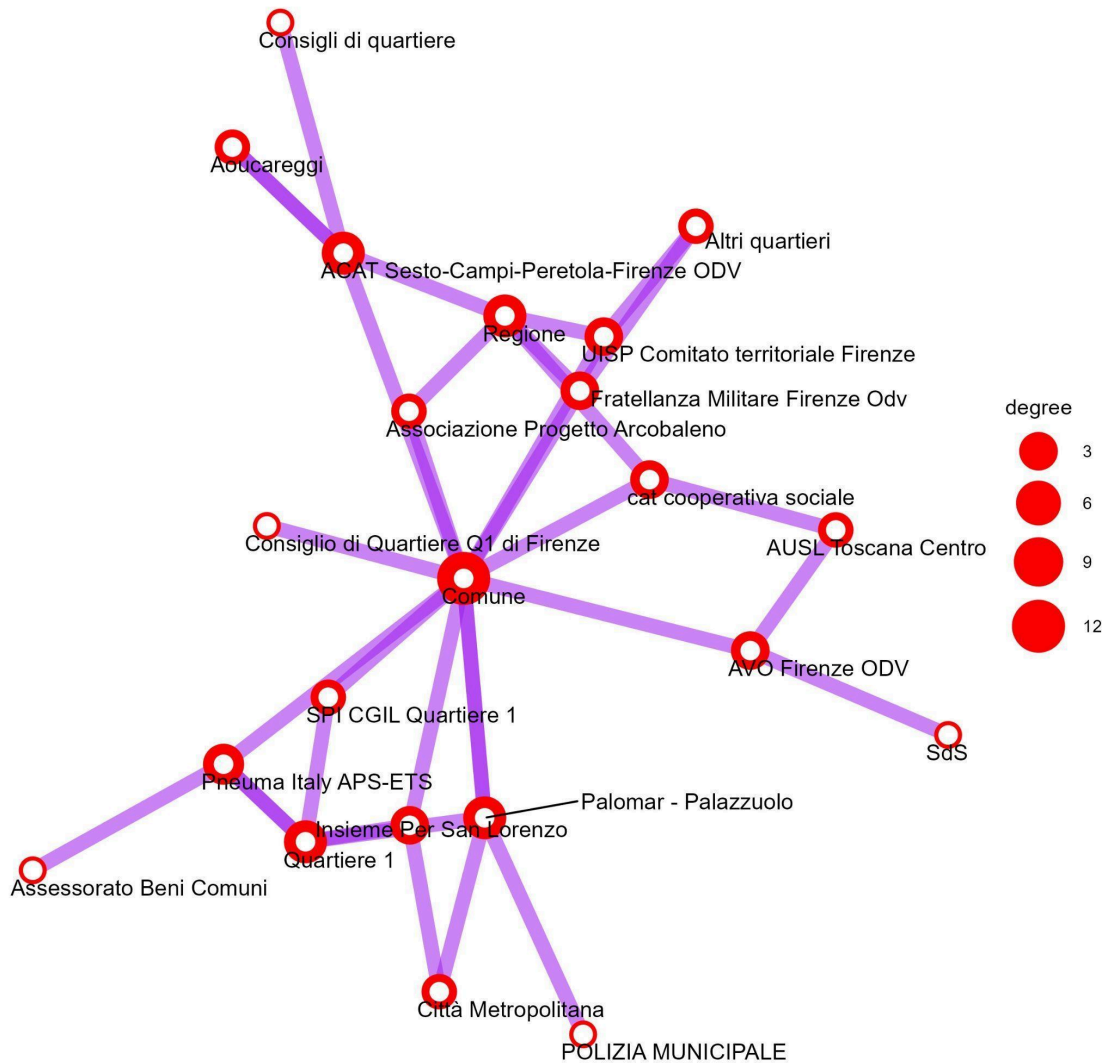


Figure 3 - Network of associations and institutions (Source: our analysis of data collected through the survey. No. of observations = 14).

In summary, the analysis of the two networks shows that fragmented collaboration prevails among the associations, while the link with the administration promotes greater cohesion. While recognising the existence of a potential network, the difficulty of promoting effective and autonomous communication between the various actors involved emerges.

In light of these elements, it seems important to encourage opportunities for meeting and direct collaboration between associations, promoting initiatives that foster mutual understanding, the exchange of good practices and the development of shared projects.

5.2 Results of the implementation phase: co-creative workshop with citizens' associations and institutional figures

The former Michelangelo Campsite Park (Figure 2) is one of the largest public green areas in Florence's Q1 district. Located in a hilly area, it is characterised by its terraced layout, numerous trees and proximity to other gardens and historical monuments.



Figure 4 - Aerial view of the former Michelangelo Campsite Park (source: Authors' elaborations using Google Earth).

During the workshop, participants were shown photos of this green area and asked to indicate possible activities to be carried out there, the resources available to do so, and the difficulties of implementation. The discussions revealed shared views on the identity of the park, how the space should be used, the activities to be carried out, the structural critical issues, and possible organisational solutions.

5.2.1 Identity of the park and how it is used

The park was imagined as a welcoming green space that could be used on a daily basis. Many participants expressed a desire to be able to experience the area as a free, informal space that could be used at no cost.

"[...] to have a place where you can go, be surrounded by greenery and not necessarily have to spend money or consume anything."

The importance of keeping large areas free from fixed activities, where it is possible to relax, read, walk or sunbathe, was emphasised.

"In my opinion, it is good to leave the garden free of major activities, in the sense that it is one of the few spaces in Florence, in Q1, [...] where one can also go to find a little peace and quiet."

The introduction of simple furnishings, such as benches, picnic tables, hammocks or deckchairs, was considered crucial to making the place comfortable without having an excessive impact on the environment.

"[...] think of a type of furniture that is clearly not impactful, but where people of all ages can go to study and read."

The park was also designed as a space for socialising and civic responsibility, where associations and citizens can collaborate, strengthening the sense of belonging to the neighbourhood. The shared goal is to transform it into a recognisable common good that is enjoyed by residents, not just tourists or occasional visitors.

"What I feel is missing is a sense of responsibility for the management of spaces, so one thing that comes to mind is the possibility of making this park a common good, [...] a space where those who decide to join in do things that reactivate a sense of belonging to the area."

Finally, the park has been recognised as a strategic green infrastructure capable of producing environmental benefits. Participants insisted on the need to provide free water and shade as essential elements in making it an accessible climate refuge:

"Climate shelters, which are much talked about, must be free, must be accessible to everyone and there must be water, so perhaps we could consider, together with the furnishings, that water should not only be at the top or bottom, but that there should be distribution points with drinking fountains."

5.2.2 Activities and socialising

"A significant part of the discussion focused on ways to make the park more vibrant, while safeguarding public peace and free access, avoiding commercialisation processes that could undermine its community dimension. While admitting commercial activities on a periodic basis, it was considered a priority that their scope be limited and that they be oriented towards the pursuit of well-being and social cohesion. A widely supported proposal concerns the establishment of a bar as a refreshment and meeting point within the park. It was suggested that its management could be entrusted to organisations with social aims, which promote the employment of vulnerable people, who would thus become both operators and users of the green area.

'It is important to have a meeting place for young people, and a bar, in fact, a little comfort... but I defend the possibility of keeping most of the rest of the park free'.

"Perhaps a bar run by a type B cooperative. A bar that employs disadvantaged people, whether they are people with disabilities or foreigners who need help."

There was also a strong focus on the park's contribution to the physical and mental well-being of the population. In fact, a therapeutic garden and low-impact physical activities, such as yoga or gentle gymnastics, were proposed, and biodiversity exploration trails were designed so that the park could become a space to be cared for and which, in turn, 'cares' for the community. The difficulty lies in transforming spaces into meaningful places that facilitate an increase in individual and collective *capabilities*.

'I think that even a green area, with its therapeutic aspect, its reading aspect, its movement aspect, its plant recognition aspect, can also have value.'

5.2.3 Problems of accessibility and quality of services

However, the workshop highlighted some structural issues, particularly related to accessibility: the lack of regular public transport and the terraced layout are obstacles for people with mobility difficulties.

"[...] you need one (bus) at the top entrance and another at the bottom, because you might say, 'I'll go up, take a walk, come back down and leave.'"

"[...] I think these terraces are perfect for children, but less so for the elderly or for those wearing high heels."

The lack of essential services, such as toilets, drinking fountains in several locations and covered areas for activities in case of bad weather, was reported. Some participants also expressed concerns about possible degradation or accumulation of rubbish following parties or events without adequate user responsibility. Finally, doubts were expressed about the ability to involve local citizens in an area that is likely to attract mainly tourists, as is already the case in other neighbouring gardens.

"But what guarantees do we have that a place like this will be frequented by Florentines?"

5.2.4 Governance and shared management

From a management perspective, the need for stable coordination, such as a co-management committee, was emphasised in order to avoid fragmentation of initiatives and ensure harmonious planning of activities.

"There is definitely a need for an umbrella association, or a committee to be set up, to keep the associations together, and a calendar."

One element considered strategic is the involvement of initiatives already active in Q1, which could transfer part of their activities to the park, avoiding the creation of new events but establishing a shared calendar and efficient management. To this end, the implementation of an online booking system for the temporary use of tables or areas by associations or groups of citizens was proposed.

"There could already be so many things, it would be enough to simply say here is a space, here is a place."

"I imagined the possibility of having spaces within the garden, which is very large, that can be adopted, even if only for an afternoon [...] so think of a calendar where citizens can book to do whatever they want in the green space."

Finally, to ensure a balance between activity and relaxation, it was suggested that the various areas of the park be used differently, proposing to organise the terraces according to specific functions and to give each one an identifying name to make it easily recognisable.

'Being a unique place, as it is sloping and terraced, it might be nice to give each terrace a name'.

In summary, the participatory process outlined a vision of a lively, inclusive and accessible park, capable of combining nature, socialising and personal care. The future of the former Michelangelo Campsite park will depend on the ability to build a co-management model that enhances collaboration between associations, schools, citizens and the administration.

5.3 The prototype generated: the shared action plan

The co-creative workshop made it possible to collect, structure and translate the ideas that emerged into an initial prototype for the use of the park, identifying both the activities to be promoted and the interventions necessary to make them operational. The results of the co-creation were summarised and divided into three areas of intervention, distinguished according to their nature and purpose: suggested activities, which include the initiatives and practices for using the park proposed during the focus group, aimed at collective use and socialising; structural and organisational actions, which refer to material or managerial interventions necessary to make the park more accessible, welcoming and functional for carrying out activities; activities promoted by associations, i.e. initiatives that the organisations present have declared themselves willing to implement directly, within the scope of their competences and local networks. In order to facilitate the implementation of

the proposals and extend the discussion to other associations, a dedicated form was prepared and sent to the participating associations with the aim of formalising the ideas that emerged and gathering any new members.

Suggested activities:

- Regular events dedicated to food, crafts, or farmers'/local markets;
- Group walks;
- Exploration of local biodiversity (e.g. through Bio-blitz involving schools);
- Seasonal physical activities for young people, adults and the elderly;
- Bars as meeting places;
- Cinema, reading and book exchange activities;
- Birthday parties;
- Design and maintenance of a therapeutic garden;
- Artistic performances and music, theatre and dance shows.
- School meetings.

Structural and organisational actions to support the activities:

- Introducing elements that make the park recognisable
- Introduce furnishings that make the park comfortable and usable for socialising or studying (e.g. tables, benches, hammocks, deckchairs, etc.);
- Name the terraces according to the activities carried out there;
- Improve public transport connections to the park;
- Reception facilities for regeneration and health services;
- Establish a calendar for 'adopting' a space in the park.

Among the proposed activities:

- Meetings with schools and citizens to propose outdoor health promotion activities. The project should involve schools in the Florence area, ASL operators, and Salute è Benessere groups;
- Include the park among the areas where 'health walks' organised by Health and Wellbeing groups take place, to encourage associations to meet;
- Outdoor physical activity aimed at people over 14 years of age, adults, seniors, and children under 14 if accompanied, and people with reduced mobility. The activity should be free of charge, with twice-weekly meetings lasting one hour each, coordinated by a qualified instructor trained by the UISP. Sessions will be held in the afternoon during the school year and in the morning during the rest of the year. The project should involve the Municipality, District 1, Health Authorities, Third Sector Associations, Citizens' Committees (including informal ones), and the Degree Course in Motor Sciences.

5.4 Results of the evaluation through the questionnaire

The Participation Questionnaire administered to 9 participants before and after the co-creation activity made it possible to assess their level of *agency*, satisfaction with the activities undertaken and perception of the elements impacting the creation of an urban green space.

The participants' level of *agency* was high, although there were significant individual differences. Satisfaction was predominantly positive with regard to the opportunity to interact with other stakeholders rather than the possibility of learning new information through the activities proposed during the implementation of the HCL. The assessment of the elements impacting possible green regeneration shows some discrepancies between the responses: some participants perceive the link between green spaces and individual well-being, viewing opportunities for discussion and action in this regard favourably, while a minority feel detached from direct involvement, limiting themselves to noting the need for more activities and proposals to regenerate the area in question. The results of the workshop show a high level of interest in the topic on the part of the stakeholders involved, but greater disagreement on the areas in which it is most important to take action to improve the neighbourhood's spaces in an ecological and sustainable sense.

6. Conclusions

Ensuring well-being and quality of life in cities is one of the most complex challenges for urban and health policies. Well-being is a multidimensional phenomenon that includes not only physical and mental health, but also relational, environmental and social dimensions. In this perspective, urban green areas play a strategic role in promoting health and social cohesion, offering spaces for socialisation, regeneration and inclusion. However, Florence's District 1 suffers from a lack of free, accessible and safe meeting places that can promote socialising and collective wellbeing. HCL sought to respond to this challenge by experimenting with a co-creation model aimed at enhancing urban green spaces as a resource for health and community.

The HCL experience in Florence's District 1 provided an opportunity to experiment with a co-creation model that combines health, the environment and social cohesion. The project brought together local resources, promoting collaboration between associations, institutions and the local community, thereby increasing the functions performed by the garden for individuals and the community. From the preliminary meetings onwards, a shared vision of well-being as a multidimensional phenomenon emerged, going beyond physical health to include accessibility, socialising and the possibility of enjoying the spaces. This perspective guided the definition of the action plan and inspired the proposed activities, which were closely linked to the needs and priorities reported by the participants in the focus groups.

Among the positive elements that emerged, the following stand out:

- the methodology adopted and the facilitation by the research group created a climate of open and collaborative discussion, in which conflict was reworked in a constructive way, transforming it into an opportunity to generate proactive dynamics;
- the diverse profile of HCL participants, which ensured a balanced gender representation and a wide range of ages;
- the particular attention paid to those most at risk of exclusion, such as the elderly or vulnerable people, and the commitment to combating social isolation by promoting fair and inclusive use of public space;
- the consistency between the needs expressed and the solutions proposed;
- the collection of concrete ideas that offer insights for fair, inclusive and sustainable planning of activities in the park.

However, the process highlighted some critical issues. A more in-depth mapping of stakeholders would have allowed for broader and more widespread involvement of organisations already active in the area, facilitating the transition from ideas to actions. The absence of a structured network of associations and the presence of latent conflicts made the process more complex, requiring greater continuity to develop engagement strategies and structured listening processes. Furthermore, the high level of participation recorded during the listening phase did not translate into an equal willingness to take an active role in the implementation phase, highlighting the need for further active and unbiased listening and further reflection on the design phase. Finally, concrete infrastructural needs emerged, related to mobility, the provision of furniture and services, and physical accessibility, which are essential prerequisites for ensuring truly equitable and inclusive use of the park.

Despite these limitations, the HCL experience retains significant potential for development. The path taken has highlighted the importance of building an organised and stable network between associations, institutions and local entities, capable of supporting the participatory management of public space over time. Only in this integrated perspective will it be possible to transform the park into a genuine space for shared well-being, inclusion and active citizenship.

6.1 Implications for the future

The HCL experience in District 1 of Florence represents a first step towards a new vision of urban greenery as a lever for health, equity and social cohesion. The process has shown that it is possible to activate local resources, build cross-cutting alliances and collectively imagine new uses for public spaces. However, in order for this potential to translate into lasting change, it is necessary to consolidate what has been started and promote a number of strategic actions.

Firstly, it is necessary to establish stable and participatory governance (Biggeri & Ferrannini, 2014) for the future of the former Michelangelo campsite area. A co-management committee or an 'umbrella association' could ensure continuity, coordination and representation, avoiding fragmentation and dispersion. This body should include associations, local institutions, citizens and educational organisations, adopting agile and transparent working methods.

Secondly, strengthening associative networks is a priority. The fragmentation that emerged in the analysis of relations between organisations suggests the need to invest in facilitation tools, networking events and shared planning, in order to enhance the social capital already present and encourage more structured collaborations.

The third key point is the need to integrate infrastructure interventions with the social dimension: shade, water, furniture and accessible transport are prerequisites for making the park a truly inclusive space, but they are not enough on their own. At the same time, educational programmes, intergenerational activities, cultural and physical activities are needed to encourage the use of the space by a variety of people. This requires coordination, cooperation and dialogue between civil society, both organised and unorganised (associations and individual citizens), and local institutions.

It will also be essential to activate a light and continuous monitoring system capable of detecting the use, perception and effects of the park on citizens' well-being. Simple and shared indicators, collected in a participatory manner, can guide adjustments and document the impact of initiatives over time.

Finally, the approach tested in Q1 can serve as a model that can be adapted to other urban contexts: a 'method' that combines co-creation, sustainability and public health, in line with the objectives of Agenda 2030. The replicability and scalability of the model will depend on the ability to keep participatory processes alive and build long-term institutional alliances.

In summary, the future of urban greenery as a welfare infrastructure requires stable alliances, distributed resources, and an integrated vision of the city as a living ecosystem. Florence's HCL demonstrates that this future is achievable, but it requires constant commitment: it must be sustained over time, communicated clearly and built together, so that it becomes a permanent part of urban and health policies.

The Future of HCL

HCLs are created to activate shared and sustainable innovation processes, in which the community and stakeholders become protagonists. Their purpose is not to co-create temporary solutions, but to leave the responsibility and capacity to carry them forward over time in the hands of the community. Each HCL therefore aims to build autonomy and collective *agency*, encouraging the creation of local networks capable of sustaining and regenerating the change produced.

To ensure that these local experiences do not remain isolated initiatives but become structural policies and stable tools for innovation in the regional healthcare system, a further step is necessary: the creation of *the Health Community Hub* (HC HUB).

The HC HUB represents the evolutionary perspective of HCLs: a regional platform for coordination, learning and enhancement, capable of ensuring methodological consistency, disseminating and replicating innovations, and integrating results into healthcare system policies and services. Without such an institutional and political framework, HCLs would risk remaining episodic experiments, whereas their potential is to become permanent drivers of systemic innovation, serving the health and well-being of Tuscan communities.

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