

# A PLAYABLE CITY AND A CITY PEOPLE PLAY IN: A DIAGNOSIS OF PLAY OPPORTUNITIES IN PUBLIC SPACES IN BARCELONA

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## **A paradigm shift: from children's playgrounds to a planned playground-city**

In the mid-nineteenth century the first public children's playgrounds began to appear in Germany, from where they spread quickly to Great Britain and the rest of Europe. For the first time, public spaces in built-up areas were equipped with infrastructures designed specifically and exclusively for children to play in, thereby helping to create cities in which children could lead more pleasant lives. The great intellectual campaigner who promoted play areas for children in the cities devastated by the Second World War was Aldo van Eyck (the Netherlands, 1918–1999). He based his ideas on the concept that “all modern cities should pay attention to their children”, a task that he hoped would be accomplished by designing and setting up spaces throughout cities dotted with play equipment where children could develop their creative, imaginative and motor skills on a daily basis, and thus become more present on a city's streets.

Encouraging children to play and interact in public areas is a challenge that our cities still have to face up to. In an inhospitable urban environment, little given to taking the needs of children into account, in which asphalt dominates over green spaces and conflicts flourish over how to use the few public areas that remain, the role our streets play as meeting places has gradually declined. The policy of preserving small spaces just so that young children can play has led to the creation of a series of over-standardized play areas that are all rather similar and unconnected

to the surrounding environment. They take into account, above all, safety, maintenance and the peace-of-mind of attendant adults rather than the possibilities and needs of children when at play.

On the face of it, play areas are a positive feature of a city. Indeed, it is important that these areas exist and that they reflect increasingly the quality criteria that encourage children – and not just the youngest of children – to play a variety of stimulating and inclusive games. Nevertheless, this model of children's playgrounds can lead to an excessive specialization of public spaces as it separates the different groups that live in cities and fails to foster more versatile and inclusive spaces that promote personal contact and co-existence. Should play areas be the only option to satisfy children's needs to play, meet and inhabit a world outside their homes? Do these play areas embrace a sufficiently wide conception of playful and physical activity for all and of the needs of the adults who have children in their care?

The City of Barcelona – and, above all, its districts – has gradually increased its number of playgrounds to around 900 by taking advantage of opportunities as they arise. The city has never had – either in the short-, mid- or long-terms – any global territorial vision nor has established any criteria or actions that favour the right of children to play, which is, for example, enshrined in the document published by the United Nations Committee on the Rights of Children *General Comment (n° 17, 2013) on the right of the child to rest, leisure, play, recreational activities, cultural life and the arts*. The city has set up more and more play areas seemingly obeying a simple criterion of 'the more, the merrier', without taking into account the quality of these installations. The image that most people who live in Barcelona have of a children's playground is probably that of the standardized fenced-off areas found in many districts of the city. Very few of these play areas are attractive to children or have their own personality or encourage a sense of community.

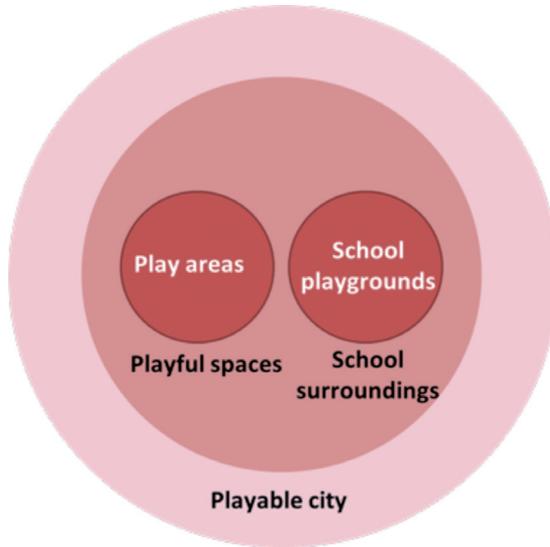
The overall design criteria, which include the accessibility of these play areas and the elements they contain, are insufficient given that they should be apt for all children whatever their capacities and incapacities and whoever they are accompanied by (often elderly grandparents). In 2016, the Barcelona Ombudsman, in light of a complaint by the mother of a child with multiple learning difficulties, called for these deficiencies to be resolved.

Thus, their lack of ability to provoke inventive play situations – i.e. their ‘playability’ – and their inaccessibility are two problems that urge a rethinking of the design criteria behind the city’s children’s playgrounds. This reflection has been expressed in a variety of forums, including the cross-cutting study group *Public Spaces, Children and Adolescence* (March 2016–June 2017), promoted by the IAB in spring 2016 and composed of representatives of 20 different municipal services. One of the highlights of this group’s work was the debate that took place during the workshop on children’s rights in cities organized jointly in December 2016 by the IMEB (Barcelona Institute of Education) and IAB. The results were published in a document entitled *24 considerations on public spaces and childhood and adolescence. Another forum was the Accessibility and Independent Life Network for a more inclusive Barcelona*, in which for a period of over two years a number of entities linked to groups with learning and mobility difficulties and city staff worked to establish a series of criteria regarding access to play areas.

The incorporation of fresh criteria aimed at improving the playability and accessibility of children’s playgrounds is an obligatory – but not the only – step towards a paradigm shift making Barcelona a more play-friendly city. The challenge goes further: how to create a framework and the tools for promoting policies on public play areas that assigns time and space to playful and physical activities in the open air, beginning with children but also aiming to stimulate the joy of play in all age groups. This work will complement other strategies designed to solve deep-rooted social issues such as child obesity, sedentary life-styles, technological dependences, lack of independence, mental health and social individualization and isolation.

Within this context there are at least four reasons why the social importance of play warrants it being considered a subject of local public debate. Firstly, play is vital for children’s overall development and has been recognized as a specific human right at this stage of life. Secondly, playful and physical activity improve a person’s physical and mental well-being. Thirdly, play generates social interaction and enriches community life, as recognized by the urban planner Jan Gehl: “children playing in the street reflect the quality of community life”. And, finally, improvements in play areas encourage a naturalization and pacification of urban settings. There is a great deal of evidence pointing to the collective benefits of

**Figure 1. The three layers of playful infrastructure.**



Source: Barcelona Institute of Childhood and Adolescence 2018.

playing in the street and to its potential to create happier, healthier and more cohesive communities in greener and safer environments.

As the United Nations has acknowledged (General Observations, n°17, 2013), the task that lies ahead is huge and there are many obstacles to the effective and progressive implementation of the right to play in Barcelona: unsafe play environments; the resistance to devoting public spaces to children’s play areas given the growing commercialization of these areas and people’s intolerance of them; the lack of communal spaces for play and leisure for people of all ages; the imbalance in the management of risk and security; the demands put on children by schools and their excessively structured and rigid timetables; the neglect of play in child development programmes; and the lack of recognition of the importance of play and leisure time.

This is the main premise of a document *Estratègia Barcelona dona molt de joc (Strategy Barcelona: room for play)* drawn up by the IIAB for Barcelona City Council that was presented in a plenary session in February

2018. It formed the basis of the city's first *Plan for Public Play Areas. Horizon 2030*, discussed and debated widely in the City Council, that was coordinated by the IIAB and presented in public as part of the City and Play conference held in February 2019. This plan contains 63 individual actions, of which 10 are designed to push towards 10 objectives by 2030 that include 14 specific objectives organized in three strategic lines:

- Line 1. More and better play spaces in the urban environment: playful infrastructure in a playable city ('stone')
- Line 2. Stimulating playful and physical activity in the streets and open air: playful uses in a city of play ('people')
- Line 3. Promote a paradigm shift: play gains ground in the city ('paradigm')

### **New framework for maximizing playability in an urban environment: three layers of playful infrastructure and seven criteria**

To help visualize this new conceptual framework for Barcelona we have used as reference material the above-mentioned United Nations reports, along with case studies produced by local administrations and specialized social-based focus groups. The aim is essentially to widen our focus from play spaces to general playful infrastructures, thereby generating a new dimension and new layers to be taken into account when contemplating urban environments: the degree of playability. We contrast it with technical skills and knowledge at municipal level to generate an awareness that can be applied via a dialogue between visions and experiences in management and maintenance and based on project design in urban environments.

The conceptual framework is centred on aspects of infrastructures incorporated into the city's urban framework that allow us to make an initial analysis of everything a city provides in terms of play and open-air physical activities. Playful infrastructure consists of the open-air urban spaces where play is possible whatever the intensity of the play activities performed there or the objectives behind the design of the infrastructure. Indeed, we base our ideas on the omnipresence of play in the lives of children: "Play is any behaviour, activity or process initiated, controlled and structured by children themselves; it takes place whenever and

wherever opportunities arise” (General Observations n° 17, 2013, United Nations Committee on the Rights of Children). As Francesco Tonucci, an Italian education specialist and advocate of the idea of cities for children, recognizes “we have to accept that the best places for children to play in a city are real spaces such as flights of steps, courtyards, parks, squares, streets and monuments”.

Thus, play areas are the areas of a city where children play but they are not the only areas where they do so. Playful infrastructure is arranged in three concentric circles or layers: (i) children’s designated play areas including playgrounds both in and outside schools; (ii) the surrounding areas encompassing schools, squares, parks, gardens and courtyards; and (iii) other urban and natural areas that can be reached on foot where play is less structured.

### **Layer 1: play areas and school playgrounds**

In the first layer we find **play areas** that are designated – i.e. fenced-off, indicated and approved – specifically for that purpose and **school playgrounds** where kindergarten, primary- and secondary-school children play during school hours and playtime, which can be used by other children outside school hours. Both types of spaces are open-air areas that permit no other uses; they are designated and designed specifically for play and physical activities, and possess some type of purpose-built infrastructure that requires official approval.

### **Layer 2: play areas and school surroundings**

In this layer we find **play areas** (parks, squares, gardens and courtyards) that can be used to play but which co-exist with other uses, and which may or may not have designated play areas. **School surroundings** are urban areas near schools and school entrances that have been traffic-calmed for safety reasons and provide opportunities for less structured play. Both spaces are essentially only for use by pedestrians, and where play and leisure possibilities coexist with other uses. They may possess purpose-built infrastructure and other approved elements. They are basically places for social interaction and are vital for inter-generational and

neighbourhood activities. Access for children must be secure and viable, whether on foot or in wheelchairs.

### **Layer 3: the playable city**

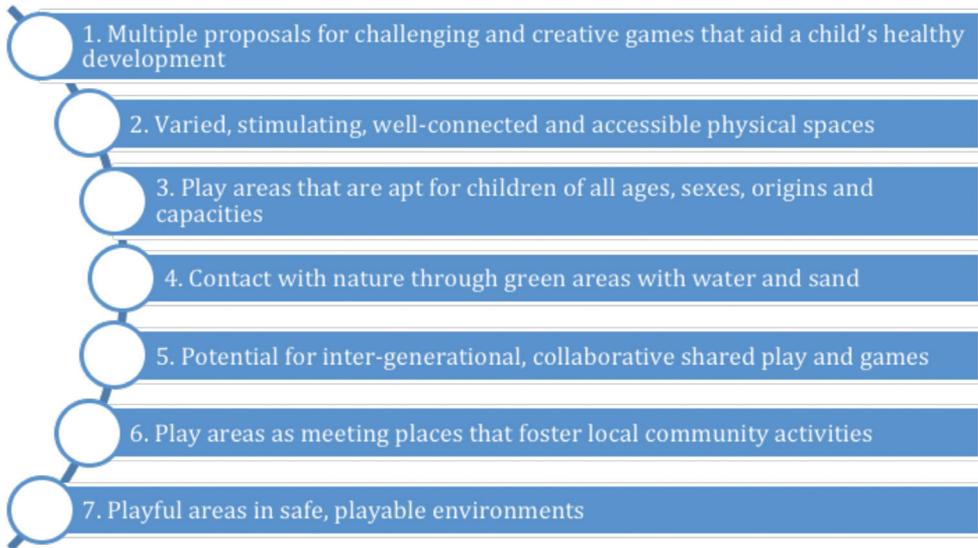
This third layer embraces all the other urban and natural spaces including pedestrian areas where children play and adults perform physical activities more or less spontaneously and casually. This layer provides opportunities for play by enlarging, optimizing and restoring urban areas, where playable elements can be installed to stimulate play. Examples includes:

- Permanent or temporary pedestrian precincts
- Traffic-calmed streets with wide pavements
- Playable urban elements (benches, bus stops)
- Urban play parks (skate parks)
- Freely accessible athletics tracks
- Sports installations (table-tennis tables, basketball hoops, Pétanque)
- Beaches, forest parks and riverbeds

The identification of playful infrastructures is a key step in the incorporation of a playability layer into a city's strategic planning – from micro-interventions to large-scale urban projects – and helps rethink and therefore promote better quality public play spaces.

These three layers describe and classify the great variety of play spaces present in a city and enable their accessibility and types (e.g. size) to be georeferenced. To characterize their infrastructures, seven quality criteria have been defined based on the UN's above-mentioned General Observations, published international research and reference documents on design, as well as the IIAB's own material and studies: *Technical Orientations for the Renovation of Play Areas in Barcelona* and *An Ethnographic Observation of Play Areas in Barcelona: an Approximation to Uses and Evaluations by Families*. Of these seven criteria, numbers 1–5 correspond to design features that encourage play, while numbers 6 and 7 refer to planning criteria that aim to improve the play environment and make it safer and better connected.

**Figure 2. The seven quality criteria for moving towards a playable city.**



Source: Barcelona Institute of Childhood and Adolescence 2018.

### **CRITERION 1: Multiple proposals for challenging and creative games that aid a child and adolescent's healthy development**

It is essential that the play areas and the elements they contain encourage diverse physical activity, thereby challenging children to invent their own games, to assume responsibilities and risks, and to put their skills to the test. These spaces must offer a combination of different types of play opportunities – movement, symbolic, motor and experimentation – that will stimulate children to practice as many of the outdoor playful activities outlined in Table 1 as possible.

**Table 1. Main children’s play activities and infrastructures that stimulate them**

| Play activity                    | Elements that stimulate activity  |
|----------------------------------|---|
| 1. Slides                        | Slides of different heights and widths, long and short, covered and uncovered, with different slopes and shapes. Platforms to slide down of different heights and gradients.  |
| 2. Swings                        | Single and grouped swings apt for different ages, from babies to adults; different heights, double, platform and basket swings for children of different ages and abilities, for playing alone or in a group, for children with motor difficulties. |
| 3. Climbing frames               | Climbing walls, ladders, elevated platforms, steps, net pyramids, climbable sculptures, giant mikados, natural tree trunks of different sizes and difficulties, for children of all ages.   |
| 4. Balancing                     | Bars, circuits, rope bridges of different heights and difficulties.   |
| 5. Jumping                       | Trampolines, flexible nets, rubber cords, sprung platforms, etc.  |
| 6. Feeling vertigo               | Single and group roundabouts, zip lines, high rope bridges, firemen’s poles, etc.   |
| 7. Seesaws                       | Single or group seesaws with springs or pivots, on the ground or suspended, with ropes and different intensity of movement.   |
| 8. Running and rolling           | Big- and open-enough play areas for children to be able to run around, ride bikes, scooters, skateboards or play ball and skip ropes, as well as many other physical activity such as handstands, etc.  |
| 9. Hide-and-peek                 | Huts, hedges, tunnels and tubes to crawl into, natural elements, etc.   |
| 10. Experimenting                | Sand pits, natural elements (stones, posts, leaves), water channels, games with pulleys and buckets, objects that make noises, circuits that can be explored, etc.  |
| 11. Role play                    | Structures in the shape of houses, kitchens, vehicles, boats, trains or animals, and other elements that suggest play scenarios (castles, huts), etc.   |
| 12. Self expression              | Blackboards, chalk, bucket and spades, stages and amphitheatres, flat concrete floors and walls for dancing, electrical and Wi-Fi connections for music, walls for graffiti, etc.   |
| 13. Meeting and chill-out places | Spaces with benches for groups to chat, large and small picnic tables, comfortable grassy areas to sit on, shade, etc.  |

Source: Barcelona Institute of Childhood and Adolescence 2018.

## **CRITERION 2: Varied, stimulating, well-connected and accessible physical space**

The design of a space should allow it to blend in with its surroundings and offer play options with different textures, materials and colours, and a physical relief that increases the possibilities for play. Play elements need only to be fenced for safety reasons (i.e. nearby traffic); ideally, the play space is an attractive, well-looked-after, welcoming place in which to meet, spend time and play.

### **CRITERION 3: Play areas that are apt for children of all ages, sexes, origins and capacities**

Play areas should offer possibilities for all ages, including adolescents and adults. Shared games in which boys and girls play together should be encouraged; games that rely excessively on physical activity should not be encouraged to the detriment of calmer activities. Play areas should encourage cultural diversity and provide approved inclusive elements that enable children with learning, sensorial or motor difficulties to enjoy playing with other children.

### **CRITERION 4: Contact with nature through natural areas with water and sand**

Play areas should possess natural elements that allow children to interact with materials such as sand, to play in facilities made of natural materials, and to splash water from taps.

### **CRITERION 5: Potential for inter-generational, collaborative shared play and games**

Structures should promote shared games for two or more children through elements requiring collaboration (pulleys, seesaws, etc.) or that require children and adults to play together.

### **CRITERION 6: Play areas as meeting places and for promoting local community activities**

Play and surrounding areas should be seen as meeting places for the local community where the needs of the adults that accompany the children – or play with them – are also taken into account. They should be welcoming, with well-maintained and clean benches, picnic tables and toilets. In this way, they can become community spaces where it is hoped local people will get involved in their upkeep.

## **CRITERION 7: Playful ecosystems and safe, playable environments**

Cities have to ensure that their play areas and other infrastructures complement each other and create enriching community spaces that favour integral personal – and, above all, child – development. They should be interconnected by traffic-free pedestrian precincts and permit children over a certain age to move around freely and play as they wish.

### **What do we know about play opportunities in Barcelona? The creation of a system of indicators and diagnosis**

To answer the question regarding the play opportunities offered by Barcelona for children, adolescents, adults and elderly people we have constructed a simple system of indicators based on the seven above-discussed criteria. In this initial analysis of public play areas in Barcelona we have evaluated various factors including their availability, distribution, proximity, density and quality of facilities, which enable us to identify deficiencies and define a baseline from which the Plan can be initiated.

Despite the desire to make the city as a built-up area compatible with the city as an inhabited area – that is, harmonize infrastructure and uses – the diagnosis has a clear bias towards infrastructures and, above all, play spaces. The City's Parks and Gardens Institute has made an effort to generate new data itemizing play spaces and has set up a database of all the play areas whose maintenance is their responsibility.

This information provides a quantitative analysis of the main characteristics of play areas (situation, size, and type of surface and barriers), as well as an overall inventory of all play elements. The most significant contribution is the use of the seven criteria as measurable indicators of the quality of the playability of each play space. The type of activity that each play element encourages (see Table 1) was determined via a visualization of all the images of the approval certificates. Furthermore, information regarding structures of special interest such as basket swings, wide slides and elements classified as 'inclusive' was gathered and classified. In collaboration with the IIAB, Barcelona Regional has undertaken for Barcelona City Council the geolocalization and quantitative analysis of all the city's leisure facilities using data provided by the Council's Parks

and Gardens Institute and the Barcelona Sports Institute's recent mapping of sports facilities.

This significant shared effort to generate knowledge will place the City Council in a better position to oversee and monitor its public play spaces, which, in turn, will allow it to make evidence-based decisions in its move towards creating a playable city and a city people play in.

As of September 2018, Barcelona had 868 play areas covering 159,100 m<sup>2</sup>. Although their average surface area is 183 m<sup>2</sup>, half (51%) are regarded as small and cover less than 150 m<sup>2</sup>. Play areas range in size from 16 m<sup>2</sup> in El Carmel to 2,282 m<sup>2</sup> in Guinardó. This collaborative effort has enabled the city to establish technical minimum standards regarding surface areas that stress that areas of less than 50 m<sup>2</sup> are insufficient for active play and so should gradually be eliminated and alternatives sought on a case-by-case basis.

Data show that eight out of every 10 of the city's children have good access to play areas, either in the vicinity of where they live or where they go to school. This reinforces the idea that the problem affecting play areas in Barcelona is not one of quantity (i.e. availability and distribution) but, rather, one of quality, since figures show that only 23% of play spaces offer six or more different play possibilities. Only 25% of areas are regarded as adequately accessible and have elements that have been approved as inclusive.

The results of the IIAB's *Survey into Children's Subjective Welfare in Barcelona* (IIAB, 2017) report that half (47%) of 10–12-year-old children, when asked, said that they were not totally satisfied with the playgrounds and playful spaces in their neighbourhoods. Adolescents and young people only had sports facilities but no other public spaces where they can, for instance, dance or meet up and hang out. Elevated and challenging structures are used by both boys and girls but only 10 play areas in the whole city have them. Inter-generational play opportunities are practically non-existent, the only places that permit this kind of interaction being sports facilities, which are essential public scenarios for non-organized playful and physical activity for young adults, adults and the elderly.

In general, in the city and, above all, in play areas and school playgrounds, there is little contact with nature and natural elements. This is

despite the evidence gathered in the case of Barcelona (ISGlobal, 2015) that confirms its importance for children, particularly in guaranteeing healthy personal development. This diagnosis condemns the fact that half of the city's play areas have no natural green areas and that there is a distinct lack of opportunity for play with water. Barcelona only has two play areas where children can splash each other and cool down, and only 18% of areas have access to drinking water (within a radius of 50 m).

School playgrounds provide a good opportunity for enriching play scenarios, both for children in school hours and for the whole community during the rest of the week. Currently, Barcelona has 69 school playgrounds open to the public (almost all in primary schools) that are part of the programme *School Playgrounds Open to the Neighbourhood*. These playgrounds generally lack features that favour diverse play activities, co-education and more natural areas, although no full inventory of these elements in the city's schools has yet been carried out. The Barcelona Educational Consortium estimates that 30% of schools have adequate playgrounds since they are either new or have been – or are being – transformed according to play, gender-equality and/or sustainable criteria.

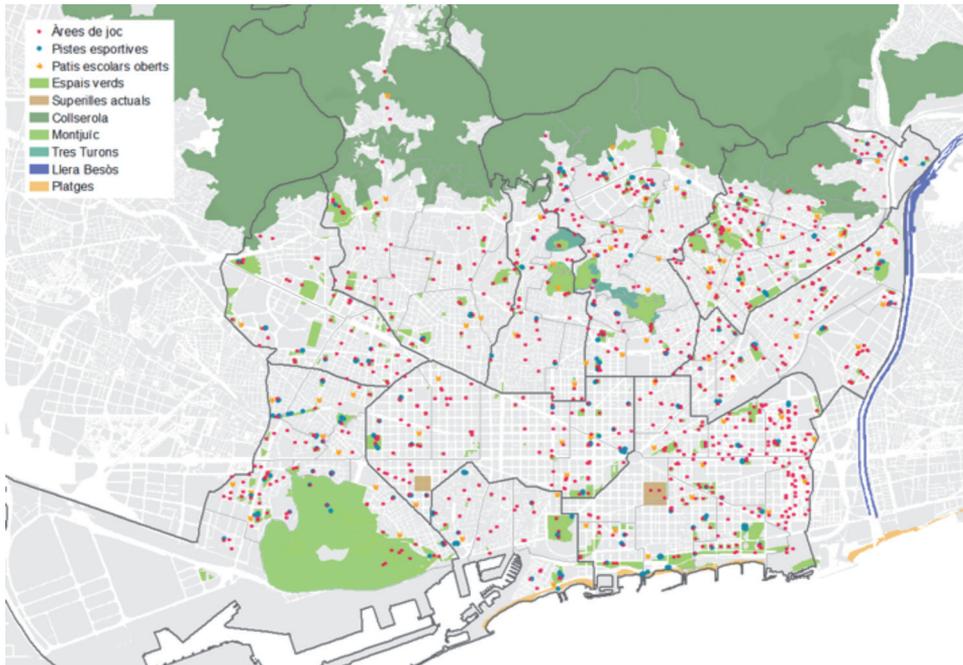
Barcelona possesses 326 green spaces (parks, gardens and squares) totalling over 2,000 m<sup>2</sup>, to which can be added the interior courtyards of the city's Eixample District covering 496.56 ha, a figure that is much larger than all the city's play areas put together. Green spaces are potentially excellent inter-generational playful spaces – irrespective of whether they have play areas or not – due to their size, versatility and, in general, their safeness regarding traffic and the presence of natural elements. There is plenty of room for incorporating play opportunities into these areas without necessarily having to designate specific play spaces. As well, their functionality could be improved by means of elements that encourage people to come and spend time there: for example, only 8.5% of the city's green spaces have public toilets, only 9% have picnic tables, and only 18% have bars or cafes with terraces.

Beyond its play areas and green spaces, Barcelona has many other open-air facilities that can be used for play: 313 athletic tracks, 11 skate areas, seven skate parks, and four urban sports tracks each covering over 3,000 m<sup>2</sup>. As well, it boasts a certain number of pedestrian precincts and traffic-calmed areas that ensure that play is not restricted to designated play areas but is integrated more fully into the life of the city. Although it is estima-

ted that 60% of the public surface area of the city is devoted to traffic and street parking, the number of areas and streets where pedestrians have priority has almost doubled in the past decade, rising from 71 ha in 2007 to 127 ha in 2017. This trend towards consolidating Barcelona as a city for pedestrians is patent, above all, in the project creating *superilles* (blocks of traffic-calmed streets where the presence of motor vehicles is drastically restricted). These blocks return public areas to people and permit them to carry out their everyday activities there, thereby encouraging sustainable mobility. These spaces are the practical manifestation of the city's strategies for improving its citizen's quality of life and its gender-equality projects, as well as the move towards a playable city.

Finally, the city's natural areas are perfect scenarios for play activities in natural surroundings: the forest parks of Collserola, Montjuïc and Els Tres Turons, as well as the banks of the river Besòs and, above all, the city's 26.7 ha of beaches where people can play in the sand or water throughout the year (but above all in summer).

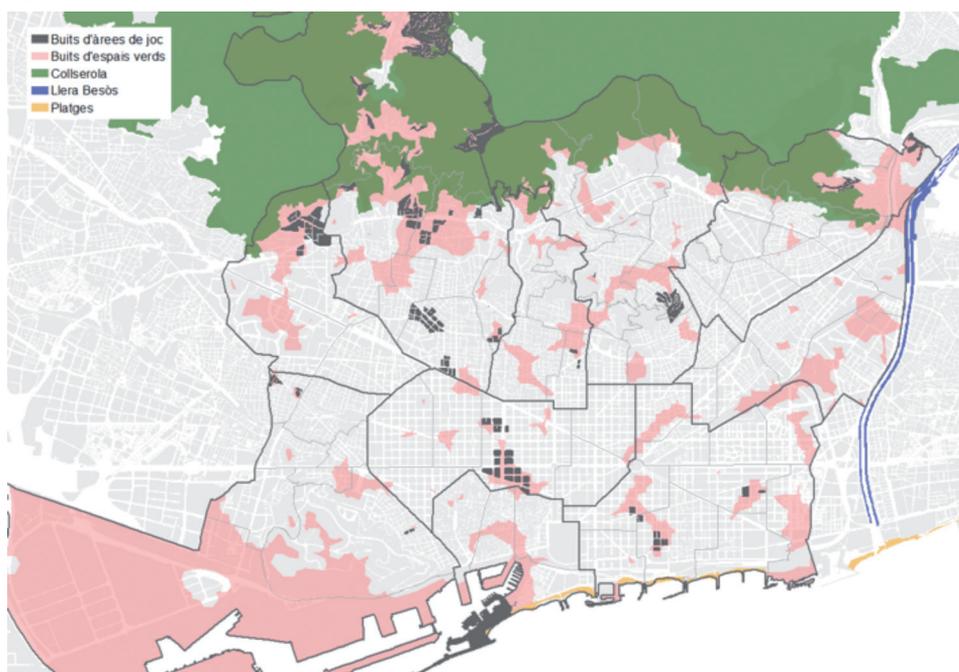
**Map 1. Location of playful infrastructure in Barcelona, 2018.**



Source: Barcelona Institute of Childhood and Adolescence 2018.

The depth of the analysis performed does not allow us to scrutinize the data separately for each city district, as the Plan had initially contemplated. It does allow us, though, to make an initial approximation and identify the playful infrastructures available in each district: Sant Martí, Nou Barris, Horta-Guidaró and Sants-Montjuïc are the best equipped districts, while Dreta de l'Eixample, Sants-Badal, Sant Gervasi-Galvany, El Putxet i El Farró, La Font de les Fargues, El Parc i La Llacuna del Poblenou, El Poblenou and Provençals del Poblenou are the worst.

**Map 2. Deficiencies in playful infrastructures in Barcelona, 2018.**



Source: Barcelona Institute of Childhood and Adolescence.

As suggested above, it is vital to complement an analysis of the availability, distribution, density, proximity and quality of the city's playful infrastructure with data on how it is used as, in essence, the challenge is to encourage people, young and old alike, to go out and play, to practice some kind of sport, and to interact in the open air. The evidence suggests that children do not play freely outdoors enough, as 29% of girls

and 23% of boys never play in a park or in the street (ESB 2016/17). The possibilities they have of going out to play are not sufficient as half of 10–12-year-old children say that they lack freedom at home, in the street and at school, and are generally unsatisfied with the play spaces that exist in the city (EBSIB, 2017). Gender differences are clear in the games played in school playgrounds both in and outside school hours, and in the type of physical activity practiced. Sedentary behaviour is twice as common in girls and young females (17%) than in boys and young males (8%) (FRESC, 2016).

An ethnographic vision of how families use and evaluate play areas in Barcelona (IIAB, 2017) reveals that adult family members accompany children to three or four chosen play areas near the places they visit habitually within the city. They seek secure, comfortable environments in terms of both design and infrastructures and the possibility of social interaction for both their children and themselves. At weekends and during school holidays children visit play areas that are further away from their homes or schools.

In terms of adult demographics, the most sedentary groups that undertake the least physical activity are women, people from the city's poorest districts, people over 65 and people born outside the European Union.

### **Measurable objectives for 2030 and Barcelona as a playable city and a city people play in**

Following the format of the aims of the 2030 Agenda for Sustainable Development, 10 major measurable targets to be fulfilled at the latest by the year 2030 have been defined on the basis of (i) the horizon of a playable city built expressly within the framework of a broad-based participatory process designed to define a plan for play in public spaces; and (ii) available data generated and systemized in the above-mentioned diagnosis. The monitoring of the indicators determining the degree of fulfilment of these targets will be one of the most important tools for evaluating the Plan for play in public spaces and one that will require the greatest degree of applied knowledge.

**Target 1: Double the number of play areas with a diversity of playful activities**

Guarantee diverse and creative play in play areas by DOUBLING the number that offer a diverse range of play, that is, at least six of the main playful activities: sliding, climbing, swinging, rocking, maintaining balance, jumping, feeling dizzy, running/riding, hiding, experimenting, role-playing, expressing yourself, meeting up/relaxing.

- Starting point 2018:
  - 23% of play areas offer a diverse range of playful activities
- Finishing point, at the latest 2030:
  - 50% of play areas offer a diverse range of playful activities

**Target 2: Ensure minimum size and playability standards for play areas**

Ensure some minimum size and playability standards for play areas by REDUCING the number that are too small (less than 50 m<sup>2</sup>) and RENOVATING those that do not have enough variety in their playful activities (those that offer less than three).

- Starting point 2018:
  - 4% of play areas have less than 50m<sup>2</sup>
  - 16% of play areas offer insufficient playful activities
- Finishing point, at the latest 2030:
  - 0% of play areas have less than 50m<sup>2</sup>
  - 0% of play areas offer insufficient playful activities

**Target 3: Increase the possibilities for sand and water play in playful spaces and play areas**

Reverse the deficit in sand and water play in play areas by INCREASING the spaces for splashing about and cooling down, as well as the possibilities of playing with sand (in demarcated sand pits or on sandy ground, which does not necessarily have to cover all the area to facilitate physical accessibility).

- Starting point 2018:
  - 2 spaces for splashing about and cooling down
  - 70% of play areas offer the possibility of playing with sand
- Finishing point, at the latest 2030:
  - 10 spaces for splashing about and cooling down (in the districts furthest from the sea)
  - 80% of play areas offer possibilities for playing with sand

**Target 4: Double the play facilities that entail challenges and risk management opportunities for adolescents and young people in playful spaces**

Double the possibilities of play involving challenges and risk management especially for adolescents and young people, with urban sports parks for skateboarding, skating and scooters (large skate parks), ziplines, giant slides (sloping or slide boards) and play features with a height challenge (3D nets over three metres high).

- Starting point 2018:
  - 4 urban sports parks
  - 9 ziplines
  - 8 giant slides
  - 10 pieces of play equipment with a height challenge
- Finishing point, at the latest 2030:
  - 10 urban sports parks
  - 20 ziplines
  - 15 giant slides
  - 20 pieces of play equipment with a height challenge

**Target 5: Increase the opportunities for shared play throughout the urban environment**

Promote shared, collaborative play and group physical activity outdoors with HALF of all certified play equipment apt for group play and different ages (basket swings, wide slides, revolving equipment, etc.) and INCREASING the sports equipment in public spaces (off-court table-tennis tables and basketball baskets).

- Starting point 2018:
  - 11 % of play equipment encourages shared play
  - 191 table-tennis tables
  - 84 basketball baskets
- Finishing point, at the latest 2030:
  - 50% of play equipment encourages shared play
  - 250 table-tennis tables
  - 150 basketball baskets

**Target 6: Increase inclusive play and accessibility**

INCREASE the play opportunities for people with functional diversity, thus encouraging inclusive play, as well as play area accessibility by improving universal accessibility design and increasing the play equipment certified as inclusive.

- Starting point 2018:
  - 25% of play areas are accessible and have inclusive-certified equipment
- Finishing point, at the latest 2030:
  - 100% of new and renovated play areas are accessible and have inclusive-certified equipment

**Target 7: Improve the habitability of playful spaces with toilets, tables, fountains and shade**

Improve the habitability of green spaces as meeting points and playful spaces by INCREASING the availability of toilets (café-bars and others), picnic tables, drinking-water fountains in green spaces and near play areas (less than 50 metres) and shade.

- Starting point 2018:
  - 18% of play areas have nearby drinking-water fountains
  - 78% of green spaces have a drinking-water fountain
  - 8.5% of green spaces have toilets
  - 9% of parks and gardens have picnic tables
- Finishing point 2030:
  - 40% of play areas have nearby drinking-water fountains
  - 90% of green spaces have a drinking-water fountain
  - 20% of green spaces have public toilets
  - 75% of parks and gardens have picnic tables or something similar

**Target 8: Double the number of playgrounds adapted for diversified, co-educational play in natural surroundings**

Improve school playgrounds so they encourage greater play diversification and co-education in more natural and sustainable surroundings by DOUBLING the state primary and secondary schools with suitable playgrounds (based on play-friendly, gender and sustainability criteria) and community uses (outside school hours), like those schools that are already in the process of transforming their playgrounds.

- Starting point 2018:
  - 30% of state schools believe they have suitable playgrounds or are in the process of transforming them and giving them community uses.
- Finishing point, at the latest 2030:
  - 60% of state schools have suitable playgrounds that offer community uses (at least 120 playgrounds).

**Target 9: 100 school surroundings with meeting places following micro-interventions**

Improve all environmentally unsuitable primary and secondary school surroundings to encourage socialisation by gradually INCREASING the micro-interventions at school entrances to turn them into suitable spaces and places to spend time in, and which encourage impromptu play.

- Starting point 2018:
  - 4 school surroundings improved
- Finishing point, at the latest 2030:
  - 100 school surroundings improved

**Target 10: Increase recreational and physical activity among children and adolescents and reduce the gender gap**

Reverse the sedentary lifestyle trend and deficit in active outdoor play during childhood and adolescence in the city by significantly REDUCING the physical inactivity rates (insufficient activity or sedentary lifestyle) among adolescents and young people (aged 13 to 19), especially teenage girls, as well as the percentage of children (aged 3 to 14) who do not devote even one day a week to playing in the park or on the street. (Sources: FRESC 16 and ESB 16/17ASPB)

- Starting point 2018:
  - 29% of girls never play in the park or street
  - 23% of boys never play in the park or street
  - 17% of teenage girls and young women are physically inactive
  - 8% of teenage boys and young men are physically inactive
- Finishing point 2030:
  - 18% of girls never play in the park or street
  - 15% of boys never play in the park or street
  - 10% of teenage girls and young women are physically inactive
  - 5% of teenage boys and young men are physically inactive

## Brief conclusions and possible next steps

For the first time ever, Barcelona possesses a diagnosis that explores the play opportunities offered by the city's public spaces, which are becoming increasingly important as ways of making city life more pleasant, healthier and more inclusive. The diversity of needs and interests of local people must be taken into account since 15% of its inhabitants are children and adolescents, and 23% are adults that look after these children and live with them. However, we must not only take into account this 38% of the city's inhabitants who are most interested in play areas but also all the city's people whose welfare will benefit from an increase in playful and physical activity in the open air. Both physical and mental activity enriches community life and, moreover, helps improve the urban environment, making it more peaceable and verdant.

The creation of a system of indicators and the generation of a database containing information managed, above all, by the city's Parks and Gar-

den and Sports Institutes was a vital pre-requisite for establishing the operational bases used in the design and planning of new local public policy. Beyond this we must continue generating essential knowledge to be applied to improving infrastructures and, particularly, leisure-time uses. As well, further research is required to monitor the indicators that will satisfy public control mechanisms, to deepen our understanding of the concept of playful ecosystems, and to apply what we learn to the diagnosis and planning within a framework of the *superbloks*, the city's new traffic-calmed social and urban street blocks.

Thus, we must continue to acquire knowledge and evidence that will enable us to compensate for the lack of qualitative systemized analysis of, for example, the city's school playgrounds. Likewise, we need to know more about the open-air playful and physical activities carried out in the city and, more importantly, the community dynamics that operate around playful spaces as places for meeting, co-existence, conflict, exchange and social mixing. A further relevant project of interest would be to evaluate the impact of the Plan for public play areas on people's health by analyzing, for example, whether or not it leads to less sedentary behaviour and obesity, a fall in solitude and social isolation, fewer problems resulting from the over-use of mobile phones, and improved mental health.

In the same way, the question of equality also warrants greater discussion and special focus: we know that, in general, in the poorest districts there is more child obesity and more sedentary behaviour, but that people also spend more time out in the street. For the time being, however, we have no specific analysis of play possibilities in public spaces from a point of view of an equality of opportunity, which – if it existed – could help justify the location of public infrastructures on the basis of greater social needs.

Finally, although public policy regarding play has no precedent in Barcelona, it does transcend and catalyse other lines of work that put into practice various aspects of local public policy including municipal strategies on green spaces, sustainability, climate, urban development in terms of gender and quality of life, universal access, sports facilities, and children and young and elderly people. This policy also helps fulfil the objectives of the 2030 Agenda for Sustainable Development – i.e. making cities more inclusive, safer and resilient – by ensuring that public spaces

are better adapted to the least numerous social groups; a move towards cities made for people beginning with its children.

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