

NATURE-BASED PLAY

Fostering connections for
children's wellbeing and climate resilience




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A city perspective: How to make it happen like Barcelona?

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“ Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody.

— *Jane Jacobs, urbanist and activist*



Be open minded.**Bring people together in the process.****Set indicators and follow them.**

These are three key recommendations for cities by Barcelona – a world leader in nature and play planning policies and implementation. How is Barcelona transforming from a compact and dense city into a *green playable city*?

One of the main drivers for nature-based play in Barcelona is the **Plan for Play**⁷⁰ – a strategy aiming to improve and diversify play and physical exercise options by developing more creative, accessible, and inclusive spaces by 2030. It is based on a comprehensive, cross-cutting approach that combines **urban planning actions** (ranging from micro-interventions and tactical planning to major urban development projects) and **social**

actions (from touring animation initiatives to new public service concepts). This is a joint initiative of district authorities and three City Council departments – (1) Ecology, Urban Planning and Mobility, (2) Social Rights and (3) Citizens' Rights, Participation and Transparency.

The Barcelona Institute for Children and Adolescents, as the City Council's instrumental

body, was the one responsible for coordinating the participatory process, as well as providing professional guidance on pedagogical approaches to urban play. This cross-cutting, interdisciplinary, and collaborative work brought a range of expertise and perspectives together. The Plan starts from initiatives already under way in the districts, and works on highlighting, redirecting, giving new meanings to, or scaling them up to a city level.



From compact and dense to green and playable – the Barcelona 'how to' © Barcelona City Council

The Plan for Play is based on a comprehensive baseline study on play areas, conducted by the City of Barcelona in 2018. This study is a unique approach to understanding play on a city scale. It showed that the city has 868 play areas totalling 159,100 m², but that around 50% of play areas are outside of a green space. Following the Plan for Play, play is being integrated into the city structures through three layers:

1 Play areas and school playgrounds are specifically designated and designed for playing. They include enclosed playgrounds and outdoor spaces at nursery, infant, primary and secondary schools.

2 Playful spaces and school surroundings are exclusively used by pedestrians with possibilities for play and playful uses alongside other public activities. They are places in which people meet socially, and are crucial for intergenerational relations, encounters between neighbours and strangers and for community life. They include parks, squares, gardens, interiors of residential blocks, and urban spaces around nurseries and schools.

3 Playable city includes urban and natural spaces, as well as pedestrian routes in the city where children, adolescents, adults and elderly people play or do physical activity intentionally, spontaneously or by chance.

The Plan for Play also highlights the urgency to provide more nature-based play, including loose nature material, trees, water and sand play. This target aligns with other city plans, such as the Nature Plan 2021-2030⁷¹ – aiming for 1m² more space per resident, Tree Master Plan 2017-2037⁷² – recognising trees as citizens, Climate Emergency Action Plan for 2030⁷³, and Green Infrastructure Impetus Plan⁷⁴ – increasing greenery in the city through participatory projects such as green roofs competitions.

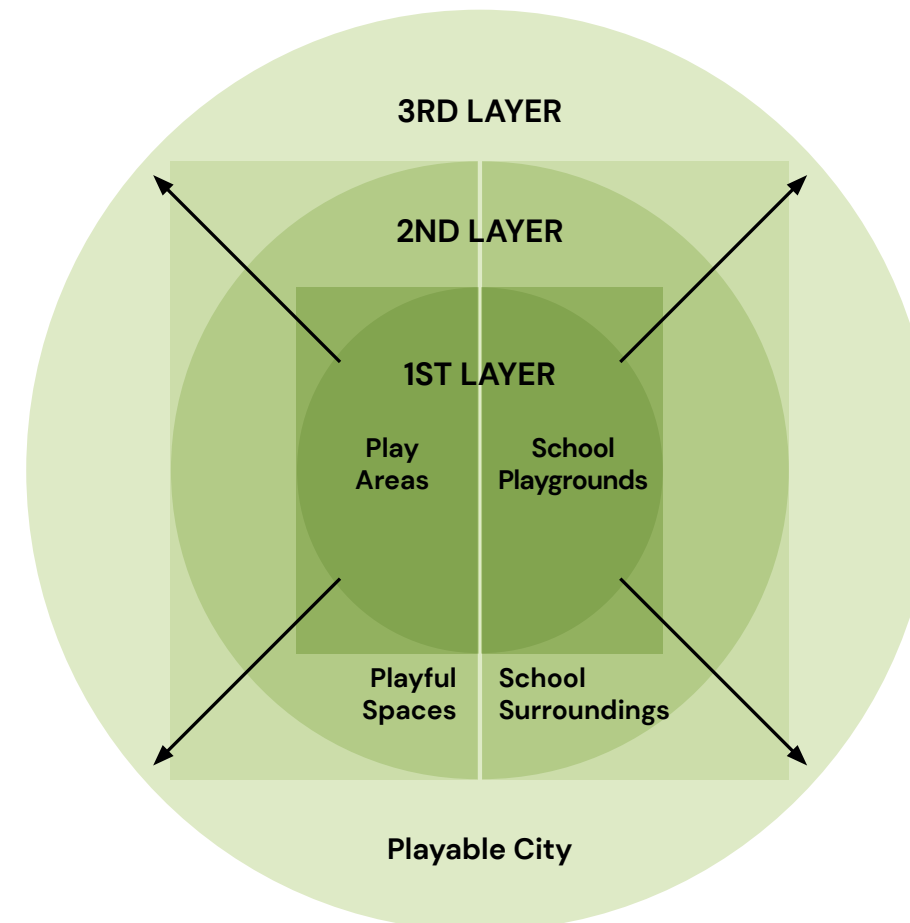
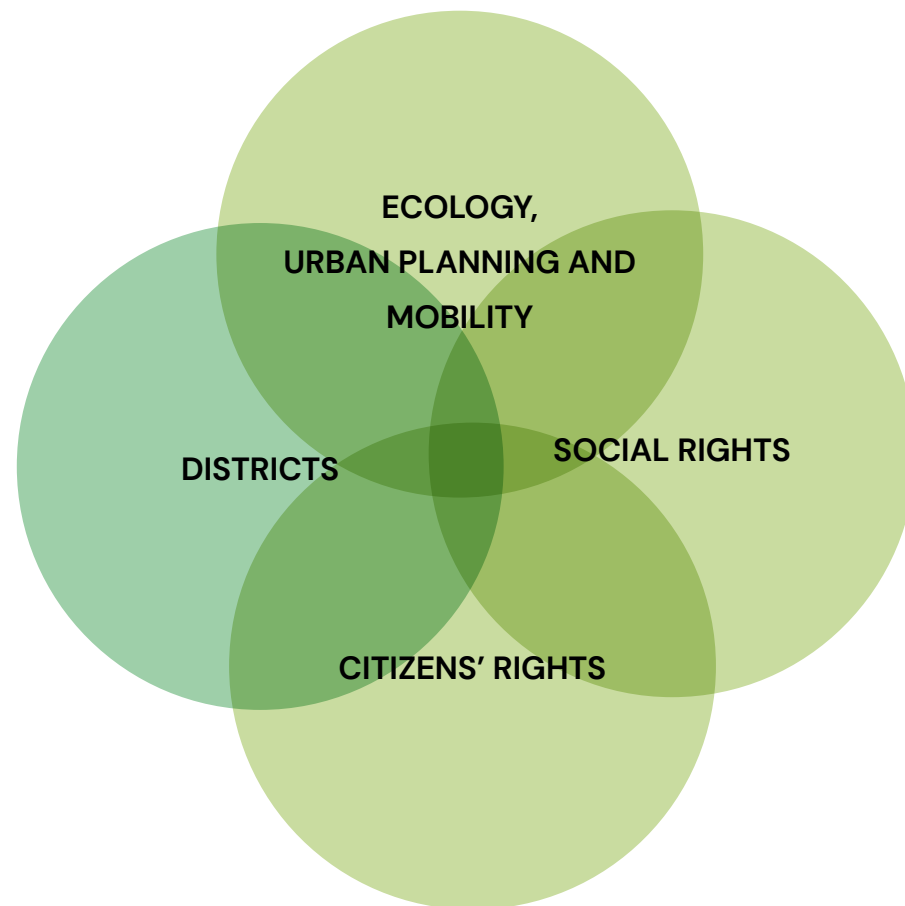
One of the strategies outlined in the Plan for Play and implemented is the ‘Let’s Protect the Schools’ (Protegem les Escoles) programme (2020-2023), aiming to improve the safety of schools’

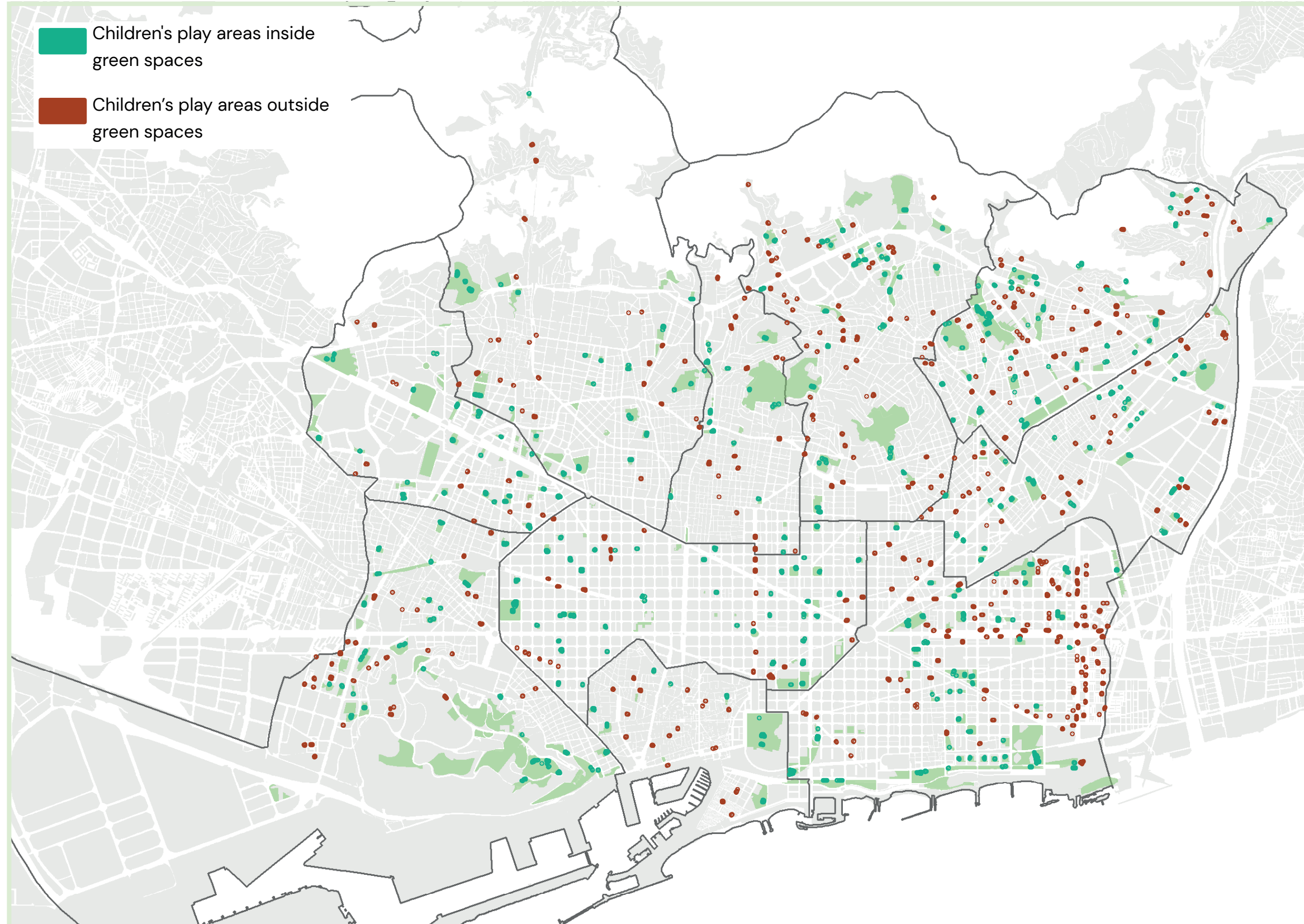
surroundings, and to decrease the proved negative effects of pollution (acoustic and atmospheric) in children’s development.

By 2030, it is expected that all 585 schools of Barcelona will offer safe and comfortable surroundings.

Nature-based play is triggered with the requirement of the programme to always include new natural elements and facilitate discussions on maintenance strategies with local and school communities.

FurnishKids project is part of the 200 interventions implemented within the ‘Let’s Protect the Schools’





Location of play areas inside green places in Barcelona (2018). Source: Barcelona Regional, based on data from Barcelona City Council

programme. International design school Elisava (UVic-UCC) co-designed diverse nature-based play elements for public space with Antoni Brusi school community. The project lasted six months, from July to December 2021, funded by the Cross-KIC New European Bauhaus Call. Furnish Kids demonstrated innovation in integrating nature-based play and urban furniture standards. It tested technical and organisational processes for incorporating more nature-based urban elements in the city council catalogue.

The participatory process and the construction of the prototypes by the users themselves – students, parents, and teachers from both schools – were the main drivers of the design and implementation process.

The project promotes circular development through the re-use of materials, local production, and manufacture, and designing with nature. The partnership with the Elisava design studio enabled experimentation with materialisation and production. The resulting prototype, “RAW”, is a set of elements made of earth – a natural, reusable, and recyclable material with a very small carbon footprint.

“RAW” elements are made of earth in three different densities: compressed, rammed manually, and loose. This variability added complexity to the resulting uses and types of play. Finally, as repeated use and play cause the “RAW” blocks to progressively break down, the physical intervention will blend completely into the surface of the playground in a few months, returning to the natural cycle.



Rammed earth block allow for different playful experiences. © Barcelona City Council



With time, "RAW" blocks will blend into the surface of the play space. © Barcelona City Council



One of the participatory design sessions with children. © Barcelona City Council

The variety in the level of material compression and in the configuration of the modules offers numerous options for generating play infrastructures. The rectangular modules of "RAW" have been dimensioned so that in combination they can form seating, dividers, and surfaces for playing, running, and jumping. They also allow pretend, imaginary and emotional play.

The testing and experimentation of "RAW" prototypes was very important for the City of

Barcelona. It allowed partnerships to form, people to experience the possible benefits of the change in city's policies and regulations, and to trigger the discussion on maintenance and other requirements in order to upscale nature-based designs to the city level.

The Furnish Kids project, embedded in the 'Let's Protect the Schools' programme, demonstrates the principles of the way the city of Barcelona is linking the nature-based solutions and play.

It requires the **open-minded approach**, experimentation, and trust in innovative solutions. It needs to be done **with people** – from strategic partnerships with educational institutions and commercial sector, to the active and meaningful involvement of children in participatory design processes. Finally, it requires **understanding impacts** and learning from the process with indicators that can inform the implementation of nature-based play based on citizen science, public data, and research.

The city of Barcelona demonstrates how nature-based play approach can have positive impacts in the revitalisation processes upstream – in plans, strategies and municipal operation across silos – and downstream, in pilots and micro interventions. Nature-based solution can be an innovative and inclusive way to address multiple city challenges. ≈≈≈