



SUPERBLOCKS IN BARCELONA

Belen Iturralde

Case study for the *TuneOurBlock* project.

Commissioned by LAUT – Landscape Architecture and Urban Transformation.

15 December 2021

TABLE OF CONTENTS

Table of contents	2
Project history	3
Superblocks in practice	5
Governance	19
Participation	21
Superilla Poblenou	21
Superilles Sant Antoni, Horta, and Hostafrancs	22
Superilla Barcelona	23
Strategies for reducing on-street parking	24
Monitoring & Indicators	28
Changes in the nature of the indicators	28
Comprehensive list of indicators from Barcelona	28
Indicators currently used by the Superilla Barcelona urban strategy	29

PROJECT HISTORY

The superblocks urban model prioritises everyday life by redistributing public space, improving green areas, and supporting sustainable forms of mobility. Superblocks involve functional changes and transformations of public space that are welcomed by many of those involved in creating sustainable urban environments.

The urban theory behind the superblocks model was developed by Salvador Rueda and inspired by Ildefonso Cerdà's original plan for the city of Barcelona: The Cerdà Plan (1860), a project designed to transform the area of the city which lay beyond the mediaeval walls. The original plan was based on a grid, each of which enclosed a block of houses. The city blocks of the new neighbourhood, the Eixample, were open and featured houses of limited height and discontinuous construction, green areas, and social and cultural infrastructure. In terms of traffic, the original plan was flexibly structured to include streetcars in all directions. Cerdà incorporated chamfers, widening the crossroads to improve circulation and increase visibility for road traffic. A chamfer is an urban resource that involves removing the sharp edges of a city block's 90-degree corner (*Figure 1*). The Cerdà Plan, however, was never fully adopted as land speculation led to densification and infill and subsequent loss of open space (public space) and the greenspaces that were initially conceptualised between the buildings, in favour of housing and transport infrastructure.

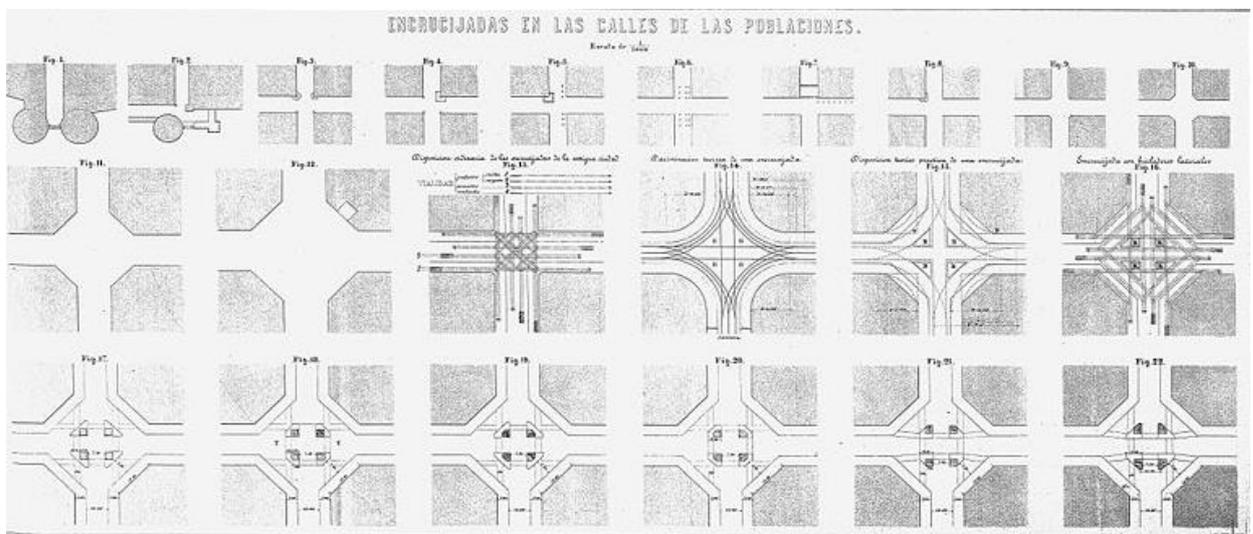


Figure 1. Shows a map of crossing streets in the Pla Cerdà (1859) (Source: Wikimedia Commons, the free media repository)

Rueda's urban theory, Ecosystemic Urbanism, aims to restore the balance contained in Cerdà's original plan by reclaiming public space from the car. Ecosystemic Urbanism calls for a contextualised approach to city-making that incorporates the principles of habitability, proximity, metabolic efficiency, environmental sustainability, sustainable mobility, accessibility, comfort,

safety, diversity of uses and functions, and coexistence¹. Rueda's theory finds expression through the superblocks model, an "urban recycling project" based on creating road hierarchies to recover public space from the automobile and encourage a modal shift towards walking, cycling and public transport. Superblocks should be reproduced throughout the whole city if the model is to generate environmental comfort without compromising the functionality of the urban system.

Rueda's criteria for a 'perfect' superblock are the following: First, superblocks are formed by grouping together nine blocks, or three blocks squared. The 3 x 3 dimensions and the creation of main crossings every 400 metres in the perimetral roads avoid the disruption of traffic flows. Second, superblocks require population density. And third, roads are organised in a hierarchy. In the superblocks' perimetral roads the maximum speed is 50 km/h and there should be bicycle infrastructure with separate cycle lanes, and shared roads between cars and buses. Inner roads have a limited speed of 10 or 20 km/h; one-way loops prevent motorised vehicles from driving straight through a superblock. As for people on bikes, they can ride in both directions, but must give way to pedestrians. The pacification of such roads should make it safer for children to go to school without being supervised.

Inside superblocks, the reclaimed urban spaces are transformed to host a diversity and multiplicity of uses. Pedestrians and cyclists gain about 70% of the space previously used by through-traffic, and four new public squares emerge at the inner intersections featuring different kinds of vegetation and urban furniture. According to Rueda, these changes can positively impact air quality, noise pollution, and greenhouse gas emissions indicators, (three of the major urban issues currently affecting Barcelona's city centre).

¹ Rueda, S. (2019). Superblocks for the design of new cities and renovation of existing ones: Barcelona's case. In M. Nieuwenhuijsen, Haneen, K. (Ed.), *Integrating Human Health into Urban and Transport Planning* (pp. 135-153): Springer International Publishing.

SUPERBLOCKS IN PRACTICE

The superblocks strategy was first approved in the *Barcelona Urban Mobility Plan 2013-2018*² under Mayor Xavier Trias (2011-2015). Yet, these ideas had been in planners' minds since the late 1990s (Figure 2). Indeed, the pacification projects in the Born neighbourhood in 1993 (Figure 3), and in Gràcia in 2005 (Figures 4 and 5), are considered as 'early superblocks'.

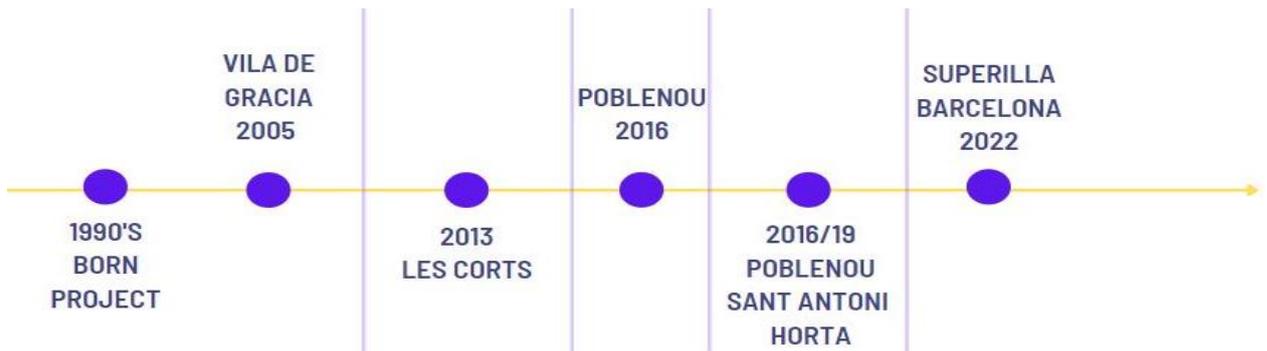


Figure 2. Shows a timeline of superblock projects (Source: graphic produced by the author based on the information available on the Superilles website).



Figure 3. Shows People going to the Born Market, walking along one of the pacified streets of the neighbourhood (Source: Antonio Lajusticia Bueno).

² PMU (2014). Pla de Mobilitat Urbana de Barcelona 2013–2018. Ajuntament de Barcelona. Retrieved from https://www.barcelona.cat/mobilitat/sites/default/files/1_pdfsam_PMU_BCN_2013-2018_definitiu2.pdf.



Figure 3. Shows the pedestrianised area around the Santa Maria del Mar Cathedral, in the Born neighbourhood (Source: the author).



Figure 4. Shows a neighbours' dinner in Plaça de la Virreina, in the Gràcia neighbourhood (Source: Goroka).



Figure 5. Shows pedestrians walking along Asturias street, in the pacified Gràcia neighbourhood (Source: Vicente Zambrano González).

Later, in 2013, Trias' government - known for its business friendly and 'smart city' approach - selected the Les Corts neighbourhood as the area where the first superblock would be piloted. However, when Mayor Ada Colau won the elections in 2015, the political decision was made to roll out the first superblock pilot not in Les Corts, but in Poblenou³. The implementation of the Les Corts superblock was revisited under Ada Colau's mandate and its implementation began in 2017. The transformations involved some permanent changes to widen sidewalks, introduce green areas, and create a park (Figures 6 and 7).

The superblocks model continued to change after the Poblenou pilot (a project which closely followed Salvador Rueda's theoretical model). The rest of this section will expand on the evolution of the superblocks strategy by describing the interventions in Poblenou, Sant Antoni, Horta, and the recently announced *Superilla Barcelona* project.

³ Zografos, C., Klause, K. A., Connolly, J. J. T., & Anguelovski, I. (2020). The everyday politics of urban transformational adaptation: Struggles for authority and the Barcelona superblock project. *Cities*, 99, 102613. doi: <https://doi.org/10.1016/j.cities.2020.102613>



Figure 6. Shows the redevelopment of Conxita Supervia street in the Les Corts superblock (Source: image taken by the author from Google Street view).



Figure 7. Shows the redevelopment of Regent Mendieta street in the Les Corts superblock (Source: image taken by the author from Google Street view).

In 2016, the government measure *Omplim de Vida els Carrers* (Fill the Streets with Life)⁴ opened the way for the superblocks project to be implemented in Barcelona. A government measure is a planning document that anticipates policies to be followed in municipal management, or reports on specific initiatives of the municipal government. Local government measures must be presented in the Municipal Council. The *Omplim de Vida els Carrers* was authored by the Municipal Council Commission of Ecology, Urban Planning, and Mobility (Comissió d'Ecologia, Urbanisme i Mobilitat del Consell Municipal de Barcelona) and the Government Commissions' Area of Ecology, Urban Planning, and Mobility (Àrea d'Ecologia, Urbanisme i Mobilitat). The Government Commissions work under the auspices of the Mayor's Office. In the governance section, the reader will find more details on government organization.

In line with Rueda's theory, the aims of Barcelona City Council's (BCC) superblocks programme are to make the Eixample district more "healthy, egalitarian, sustainable and full of life" by supporting a modal shift and improving indicators related to habitability, availability of and access to green spaces, noise and air pollution levels, traffic accidents, sedentarism, urban heat island effect, and CO2 emissions⁵. In practice, superblock transformations require changes in traffic organisation as well as spatial interventions to improve habitability. The latter involve long-term structural changes as well as bringing into play tactical urbanism techniques – light, quick, and inexpensive interventions aimed at exploring and testing ideas⁶.

The Poblenou superblock was implemented during European Mobility Week 2016 using a Tactical Urbanism approach with quick and temporary interventions (*Figure 9*). This was the first superblock that closely followed Rueda's conceptual model (*Figure 8*). This superblock is in a residential neighbourhood not as densely populated as the rest of the Example, and where most of the housing stock is public⁷. It is delineated by Badajoz, Pallars, Llacuna, and Tànger streets. The main issue with this project was the lack of prior consultation with locals. Pressure from community groups led to a 'a posteriori' participation process⁸ which significantly helped in creating acceptance for the project. Presently, the transformations in Poblenou include tactical urbanism interventions to introduce new play and stay areas (*Figure 9*) as well as structural changes to elevate some streets and create green patches and veggie gardens (*Figure 10*). A major change resulting from the participation process was that planners agreed to allow a bus route through the superblock (which contradicts Rueda's theoretical model) because neighbours considered it to be important for inclusive mobility.

⁴ Ajuntament de Barcelona. (2016). *Omplim de Vida els Carrers: La implantació de les Superilles a Barcelona*. Retrieved from https://www.slideshare.net/Barcelona_cat/mesura-de-govern-oomplim-de-vida-els-carrers-lla-implantaci-de-les-superilles?from_action=save

⁵ Ajuntament de Barcelona. (2017). *Pla d'Acció per a l'àmbit de superilles de Sant Antoni: Pla d'Acció Consensuat* [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/pla_accio_superilles_santantoni.

⁶ The Street Plans Collaborative. (2021). *Tactical Urbanist's Guide*. Retrieved from: <http://tacticalurbanismguide.com/about/>

⁷ Ajuntament de Barcelona. (2016). *Presentació Superilla Poblenou* [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/20161013_SIP9_ConsellBarri_0.pdf

⁸ Ajuntament de Barcelona. (2018). *Superilla del Poblenou. Superilles*. Retrieved from: <https://ajuntament.barcelona.cat/superilles/ca/content/poblenou>



Figure 8. This image shows the map of the Poblenou superblock (Source: Ajuntament de Barcelona).

The study *Salut als Carrers: Avaluació dels àmbits Superilles* (Health in the Streets, an evaluation of the Superblocks)⁹ evaluated the impacts of the Poblenou, Sant Antoni, and Horta superblocks as of the year 2021. The impacts of the Poblenou superblock have been assessed in relation to environmental, public space and mobility, as well as wellbeing and health aspects. In terms of pollution, a decrease in acoustic pollution is perceived. Regarding the use of public space and mobility, the results show that while local families with young children and people who work in the area are the groups that use the superblock the most, young people and older people are not frequent users. Some older people feel that changes in mobility have had negative effects on access to certain areas. Also, inside the superblock, there is a perceived improvement in mobility due to the reduction of motorised vehicles, and it is perceived that traffic may have shifted away from streets with pedestrian priority to the surrounding streets. Lastly, there is some tension between pedestrians and cars due to unclear signalisation. In relation to well-being and health, it is believed that the superblock has facilitated interaction between neighbours and has favoured social relations. Workers report that the picnic tables promote

⁹ Agència de Salut Pública de Barcelona. (2021). *Salut als Carrers: Avaluació dels àmbits Superilles*. Retrieved from: <https://www.aspb.cat/documents/salutalscarrers/>.

healthier eating habits. Overall, there appears to be a more relaxed atmosphere within the superblock which translates into reduced stress levels and improved mental health.



Figure 9 shows the tactical urbanism interventions inside the Poble Nou Superilla (Source: José Luis Muñoz Díaz).



Figure 10 shows the permanent transformations inside the Poble Nou Superilla (Source: Curro Palacios).

The Sant Antoni superblock¹⁰, completed in 2018, is different to Rueda's ideal model because instead of 3x3 building blocks it includes the entire Sant Antoni neighbourhood which consists of 12x8x8 city blocks in an arrow-shaped form (see *Figure 11*). Moreover, instead of pacifying two out of three streets, only one in three became civic axes. This, however, does not mean that the remaining streets of the superblock did not undergo any transformations - While there might be no changes to streetscapes, shifts in traffic organisation occurred.

The transformations to improve habitability include four sections of street forming a cross shape (Comte Borrell between Floridablanca and Manso; and Tamarit, between Viladomat and Comte d'Urgell), and the creation of a public square of 1,800 m² in the middle. A 'super plaza' emerges on the intersection of the two green axes. When a green axis intersects with the inner streets of the superblock, 'half plazas' are created by expanding the chamfers. Part of the green axes network that prioritises pedestrians, include the streets Comte Borrell, between Gran Via and Floridablanca; and Tamarit, between Viladomat and Calàbria, which underwent long-term transformations (*Figure 12*). Borrell street between Manso street and Paral·lel Avenue, as well as Parlament street between Ronda de Sant Pau and Viladomat, feature tactical urbanism changes (*Figure 13*). These interventions also include changes in traffic organisation, for example, on the intersection of Borrell and Parlament streets you cannot drive straight through because the streets organised as one-way loops expel cars by forcing them to turn. Public space is gained through the extension of sidewalks, the elevation of the streets to create single platforms, and the incorporation of vegetation and public furniture. In sum, the Sant Antoni superblock prioritises the extension and continuity of green axes over the creation of isolated 'pacified pockets'. This approach has become the model to be reproduced throughout the city by way of the Superilla Barcelona urban strategy¹¹.

¹⁰ Ajuntament de Barcelona. (2017). Pla d'Acció per a l'àmbit de superilles de Sant Antoni: Pla d'Acció Consensuat [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/PLA%20D%27ACCI%C3%93-CONSENSUAT_low.pdf

¹¹ Ajuntament de Barcelona. (2020, November 11). *Barcelona Superblock: new stage*. Superilles. Retrieved from: <https://ajuntament.barcelona.cat/superilles/en/>

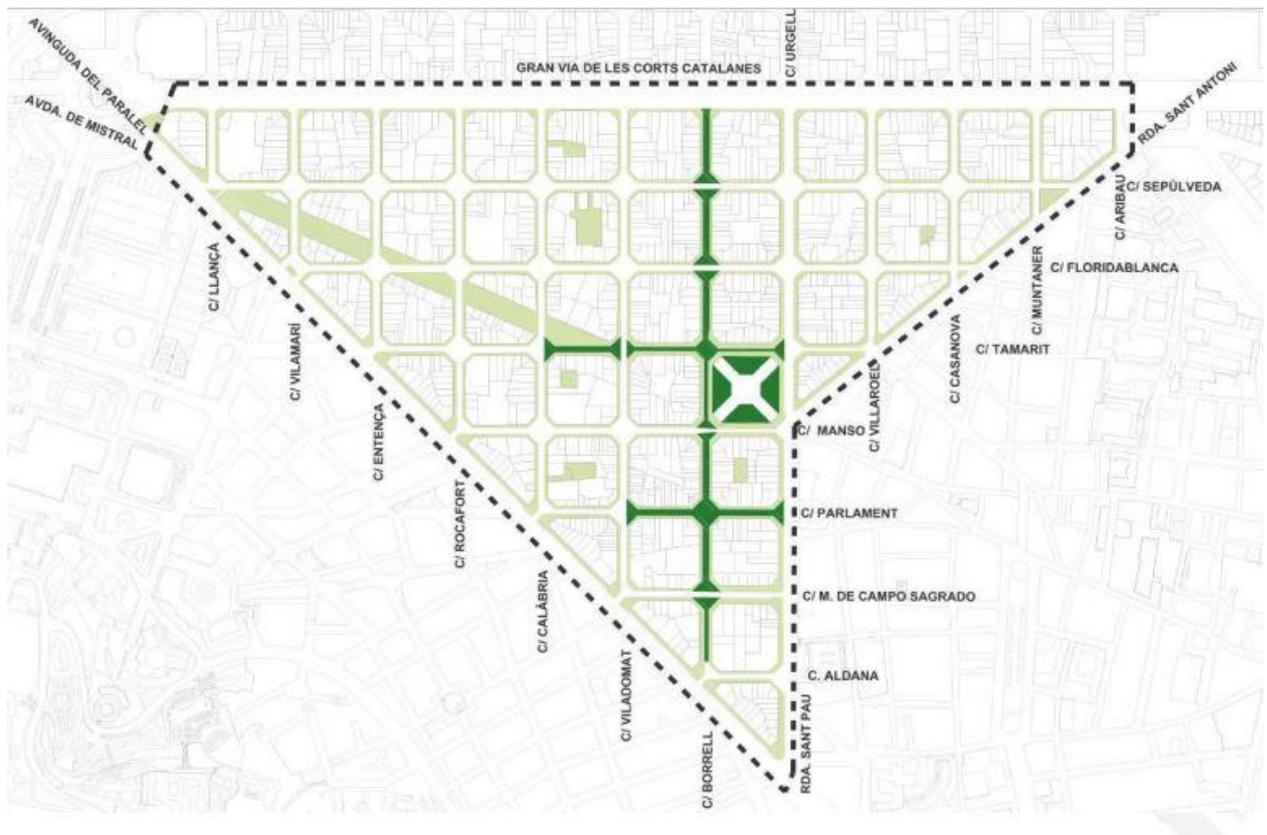


Figure 11. This image shows the map of the Sant Antoni superblock (Source: Ajuntament de Barcelona).

The *Salut als Carrers: Avaluació dels àmbits Superilles* report found that, in the Sant Antoni superblock, there has been a reduction in pollution levels: NO₂ emissions decreased by 25% and PM₁₀ by 17%. In addition, noise pollution is perceived to have been improved thanks to a reduction in the number of cars. In terms of uses of space and mobility aspects, older people significantly use the new public spaces while young people are under-represented. While families with young children also enjoy the new spaces, they believe that road safety in the superblock must be improved. In general, there is a diversity of uses of the space, activities that take place include shopping, strolling, passing by, exercising, and socialising. People who identify as women walk more than men, but more men use the public space for physical activities. In terms of health, the Sant Antoni superblock is perceived to be more peaceful, safer and more satisfying than before the transformations took place. This, in turn, improves people's capacity to rest and socialise.



Figure 12 shows the 'super plaza' next to the Sant Antoni market. The public spaces around the market were permanently transformed by Ravetllat arquitectura studio, the same architecture studio behind the redevelopment of the Sant Antoni market (Source: the author).

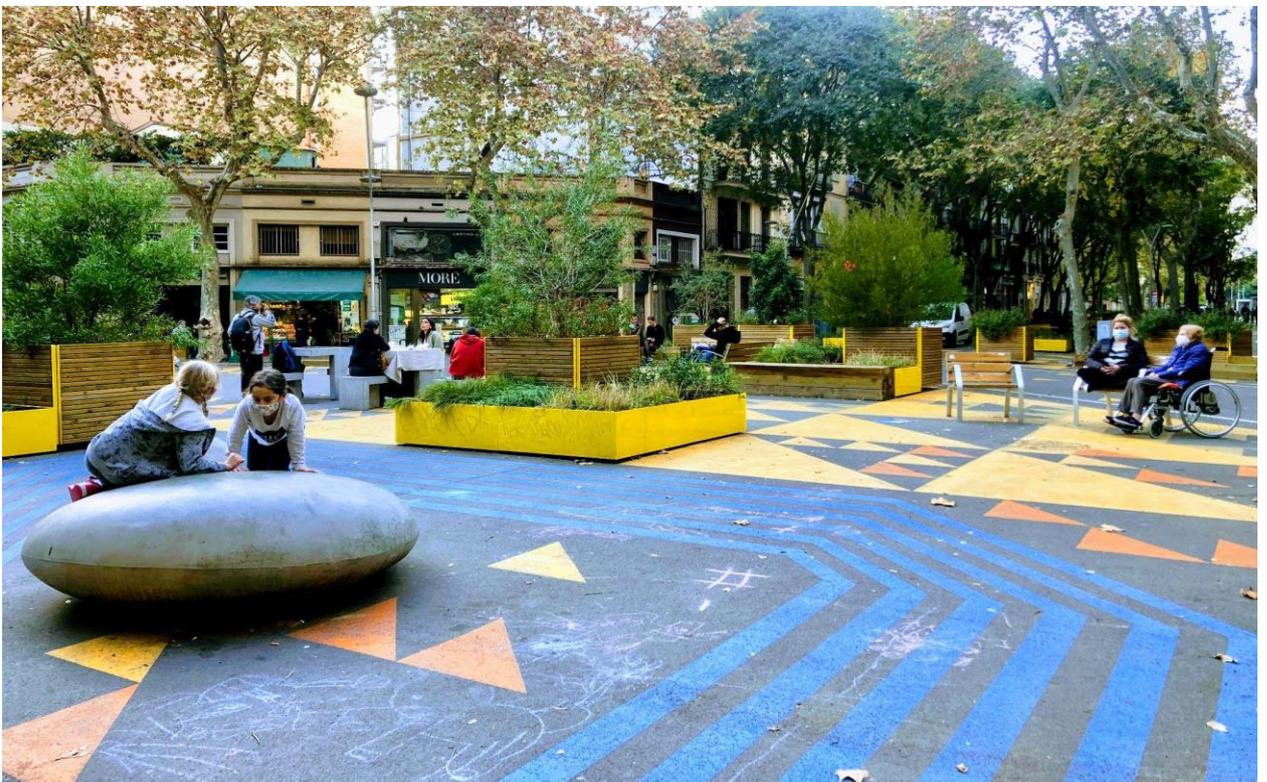


Figure 13 shows the 'super plaza' in the intersection of Parliament and Borrell streets, in Sant Antoni made through tactical urbanism interventions (Source: the author).

The *Salut als Carrers* report found that, in general terms, the pollution levels for NO₂ and PM₁₀ in the Horta superblock remain low and have not changed with the superblock interventions. For the main street of Horta an increase of black carbon was observed after the implementation of the superblock, while a decrease of black carbon was observed for the inner streets (those which underwent transformations). The survey, a sample of 1200 people of different genders and ages on mobility and uses of space, found that 60% of women and 66% of men consider that walking comfort has increased. Similarly, fewer women (68%) than men (74%) consider that accessibility for cars has improved. On the main street, there is perceived to be a high number of cars which circulate at speeds above the permitted limits. This creates perceptions of insecurity, especially for children. In the inner streets, there is a perceived reduction in the number of cars and the speed at which they circulate. In addition, the superblock changes are regarded as having created more space for pedestrians and better accessibility for people with reduced mobility. In terms of health and well-being, it is believed the transformations of public space, overall, created quality areas for stay and socialising. Yet only 6% of surveyees stated they use public spaces for exercise, and only 45% of women and 56% of men consider the transformed spaces to improve their well-being.



Figure 15. This image shows people walking along Carrer d'Horta, one of the pacified roads in the Horta superblock (Source: Mónica Moreno).

In sum, while the environmental impacts of individual superblock interventions may differ (the report found some neutral and some negative effects in the different neighbourhoods), environmental indicators and the perception of residents confirm a reduction in overall air and noise pollution in the superblock environments. At the same time, while the interventions have reclaimed much needed public space for the community, the *Salut als Carrers: Avaluació dels*

àmbits Superilles report suggests that “more extensive pacification measures should be considered”, as well as “inclusive spaces for all stages of life and ages”¹³.

This is where the *Superilla Barcelona* comes in (Figure 16). The *Superilla Barcelona* represents the latest stage of the evolved understanding of superblocks that was announced by Mayor Ada Colau and Deputy Mayor Janet Sanz in a press release on November 11, 2020¹⁴. The *Superilla Barcelona* urban model focuses on creating green axes along routes that connect public infrastructure with other areas of everyday activity; and on interconnecting these green axes to form a ‘super superblock’ in Barcelona. The strategy is to reproduce the Sant Antoni superblock approach throughout the city centre by 1) transforming one out of every three streets into green axes, creating a total of twenty one green axes (33 Km); 2) building twenty one new public squares (totalling to 3.9 hectares of public space); 3) reclaiming 33.4 hectares of public space for pedestrians; 4) greening 6.6 hectares of urban spaces; 5) ensuring a coverage of 200 metres proximity to green spaces, meaning that the population living in the Eixample district will either directly live on a green axis or at a maximum distance of two blocks away from one¹⁵.

According to the press release, the project's first stage will see the transformation of four streets into green axes with pedestrian priority and build four super plazas. The design competitions were also announced in the press release¹⁶. The first competition selected the teams in charge of the redevelopment projects for the first four green axes (Consell de Cent, Rocafort, Borrell, and Girona streets), which amount to 4.65 km and 11.12 Ha. The second competition selected the teams in charge of creating each of the four ‘super plazas’ at the intersections of Consell de Cent with Rocafort, Borrell, Enrique Granados, and Girona streets. Works are scheduled to start in June 2021 and end by March 2023.

¹³ Carey, C. (2021, November 8). Barcelona ‘superblock’ sees 25 percent drop in pollution. Retrieved from Cities Today: <https://cities-today.com/barcelona-superblock-sees-25-percent-drop-in-pollution/>

¹⁴ Ajuntament de Barcelona. (2020, November 11). *Cap a la Superilla Barcelona*. [Press Release]. Retrieved from: <https://ajuntament.barcelona.cat/premsa/wp-content/uploads/2020/11/201111-DOSSIER-Superilla-BarcelonaVDEF.pdf>

¹⁵ Ajuntament de Barcelona. (2020). *Superilla Barcelona Presentation* [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/Presentacio_SUPERILLA_BARCELONA.pdf

¹⁶ To find out more about the design competition, the winners, and their project proposals, visit this link: <https://ajuntament.barcelona.cat/superilles/es/content/resolucion-de-los-concursos-de-ideas-de-superilla-barcelona>

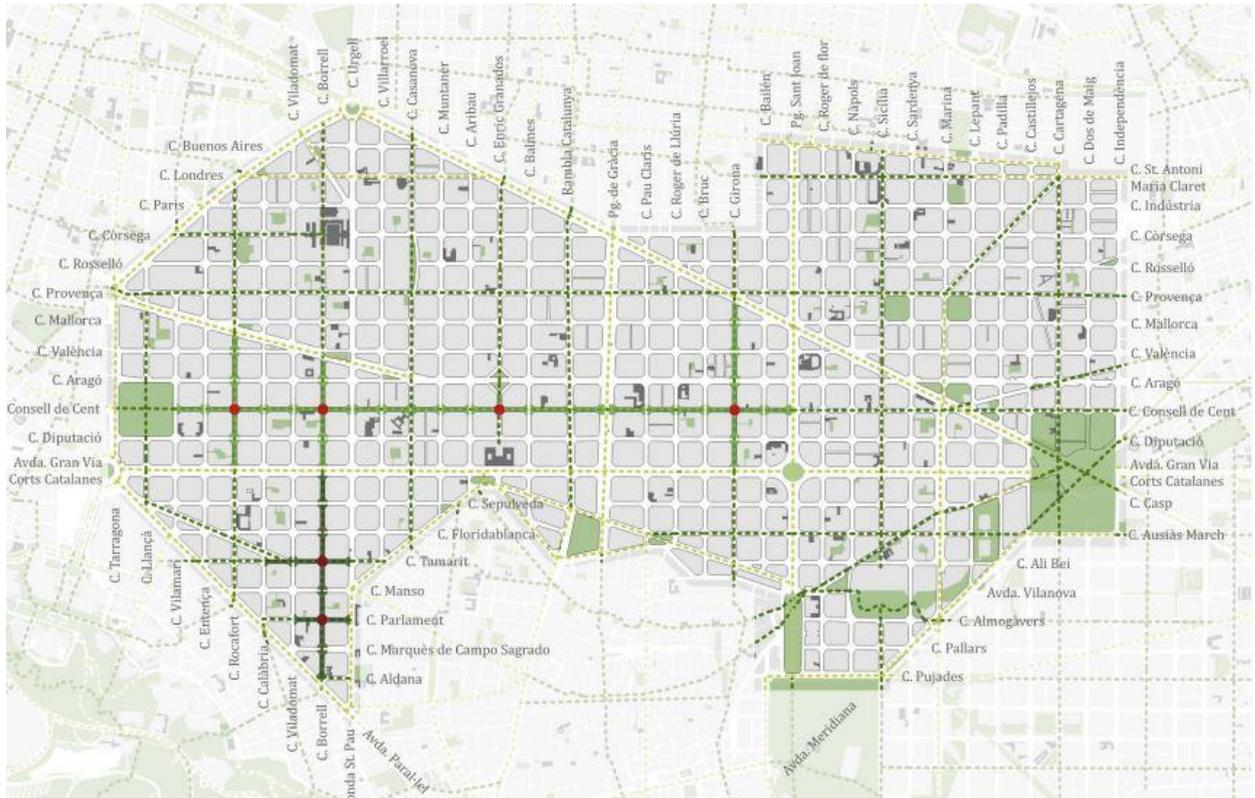


Figure 16. This image shows the map of the Superilla Barcelona. The solid dark green lines show the green axes with pedestrian priority already implemented in the Sant Antoni neighbourhood; the solid light green lines represent the planned green axes with pedestrian priority that will be implemented by 2023; the dotted dark green lines show are the green axes with pedestrian priority that will be implemented in the future; the dotted light green lines indicate existing green axes where pedestrians do not have priority; and the red dots show the existing and soon to be built 'super plazas' (Source: Ajuntament de Barcelona).

GOVERNANCE

The superblocks project in Barcelona is led by a technical team that provides professional support and is made up of representatives from the Urban Ecology Area of the City Management Office (Gerencia Municipal, Àrea de Ecologia Urbana). This office responds to the Mayor's Office of the BCC. This team is instrumental in realising the superblocks strategy. Additionally, the government measure *Omplim de Vida els Carrers* (Fill the streets with life) establishes that the implementation of superblocks will involve the coordination and participation of the following actors¹⁷:

- **Public entities:** Provide specialised knowledge on the aspects linked to the superblocks (i.e., sustainable mobility, and green and public space). These entities could be at supra-local (such as Barcelona Metropolitan Transport Agency) and at local level. The latter includes autonomous municipal institutions; enterprises where local government is a partial stakeholder; business associations; and consortiums, foundations and associations attached to BCC.
- **The Area of Ecology, Urban Planning and Mobility (Àrea d'Ecologia, Urbanisme, i Mobilitat):** This is an area within the Local Government Commission that responds directly to the Mayor's Office¹⁸. The head of this area is Barcelona's Second Deputy Mayor Janet Sanz. In regard to the superblocks project, this entity provides specific knowledge for the planning, design, infrastructure, mobility and maintenance of public space.
- **The District Councils¹⁹:** These entities are the representative and collective participation bodies of the districts. Their main functions are to report on proposals and propose plans and programmes on issues affecting the territory. The District Councils approve the distribution of expenditure allocated to the District and the District Municipal Action Plan (PAD). District councillors are appointed by the Mayor and act with the right to speak but not to vote. In other words, the district councillor is the head of the territorial government and, in this mandate, a representative and member of the municipal government. Regarding the superblocks strategy, the District Councils provide expertise on the specific physical and social contexts. There is no specific structure in place or officers

¹⁷ Ajuntament de Barcelona. (2016). *Omplim de Vida els Carrers: La implantació de les Superilles a Barcelona*. Retrieved from https://www.slideshare.net/Barcelona_cat/mesura-de-govern-oomplim-de-vida-els-carrers-lla-implantaci-de-les-superilles?from_action=save

¹⁸ For more information on the municipal organisation chart, visit this link <https://ajuntament.barcelona.cat/es/organigrama-municipal/arboll-jerarquico>

¹⁹ Ajuntament de Barcelona. (2021, December 7). Consejo de Distrito. *L'Eixample*. Retrieved from: <https://ajuntament.barcelona.cat/eixample/es/el-ayuntamiento/estrategia-y-accion-de-gobierno/consejo-de-distrito>

leading the implementation of superblocks at a district level. The superblocks become the District Council's responsibility once the implementation has been completed.

- **Neighbours, local entities and specific groups in the territory:** These provide the contextual knowledge (problems, needs, demands...) of those who live in the superblock area.
- **Experts:** This category includes external experts who provide research, innovation, and comparison with other world experiences.



Figure 17. This graph shows the key actors involved in pushing forth the superblocks strategy in Barcelona (Source: image produced by the author with the available information on the *Omplim de Vida els Carrers* document).

Once the stages of the superblock's participatory process are complete (as explained in the following section), all matters regarding the superblock become the responsibility of the corresponding District. The district has several public participation channels available where neighbours can present their feedback and voice claims on a variety of issues such as mobility, functional aspects, public space, wellbeing and health, and pollution. This can be done in person or via the postal service at the district office, through the online complaints portal, and at the District Council's sessions.

PARTICIPATION

Encouraging community participation and co-responsibility was a strategic goal of the government measure *Omplim de Vida els Carrers* (Fill the streets with life), which, until now, has guided the implementation of superblocks in Barcelona. This section will expand on the specific superblock projects already implemented or taking place in Barcelona and shine a light on how the approach to community engagement has become more intensive with the evolution of the strategy: from Superilla Poblenou to Superilla Barcelona.

SUPERILLA POBLENOU

The functional and tactical changes first introduced in the Poblenou superblock were implemented practically overnight, by a team of planners and architecture students during Mobility Week 2016. The transformations proved controversial among residents because many believed the project did not reflect their needs in relation to the new uses of space, traffic, public transport, cycling, parking, and loading zones. Neighbours organised to voice their concerns about the top-down approach of the project, and demanded their voices be heard. The BCC became aware of the generalised discontent, admitted there were defects in the design, and announced they would make amends. Deputy Mayor Janet Sanz made a point to visit the Poblenou superblock and talk with residents to identify key concerns²⁰.

The participatory process in the Poblenou superblock was carried out *a posteriori*, that is, after the main transformations had already taken place (although through tactical urbanism techniques). The participatory process aimed at co-designing an action plan for a second phase of superblock transformations in Poblenou²¹.

Firstly, superblocks planners collected complaints and contributions from Poblenou residents and categorised them by topics (private vehicle traffic, public transport, parking and loading zones, bicycle network, and streets and public spaces). The main ideas put forth by neighbours included creating seated areas (public furniture, picnic tables); incorporating greenery (trees and flowerbeds); marking play areas on the ground; creating sports areas (such as fitness circuits, athletics track, table tennis); and generating spaces for debate, exchanging books, and reading, as well as for hosting art exhibitions and markets.

²⁰ Soro, S. (2016, September 12). Barcelona reconfigurarà la superilla del Poblenou davant les queixes dels veïns. *ara*. Retrieved from: https://www.ara.cat/societat/barcelona-reconfigurara-superilla-queixes_1_1373859.html#_=_

²¹ Ajuntament de Barcelona. (2016). Presentació Superilla Poblenou [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/20161013_SIP9_ConsellBarri_0.pdf

Secondly, a Steering Group was created that would work with superblock planners to review the action plan for the second phase of transformations. The Steering Group included local entities and collectives such as the *Plataforma d'afectats per la Superilla* (a collective of people affected by the superblock intervention), the *Col·lectiu Superilla Poblenou* (the Poblenou Superblock Collective), the *Associació de Veïns i Veïnes de Poblenou* (Poblenou's neighbours association), the 22@ Network (private business association), universities, schools, trade associations, and guilds. The Steering Group's work sessions were formatted as thematic workshops based on the above-mentioned categories. The aim was to collectively debate neighbours' specific contributions, which had been collected by superblock planners at the start of the process. These sessions were designed for the Steering Group but were also open to anyone who wished to attend.

The reader can find more about the participation process format and methods used in '**Support document 1: Participation methods**'.

SUPERILLES SANT ANTONI, HORTA, AND HOSTAFRANCS

Applying the lessons learned from the first superblock implementation, subsequent superblocks interventions in Sant Antoni, Horta, Hostafrancs - under the government measure *Omplim de Vida els Carrers* - incorporated a carefully designed participation process. This process involved the following actions²²: First, these processes began with the formation of a steering group that would be involved in the project from design through to the evaluation phases. The goal of a steering group is to provide planners with specific information about the territory, contextualising the project, and improving it. The steering groups are made up of people belonging to neighbourhood entities and planners.

The work structure of the steering groups in Sant Antoni, Horta²³ and Hostafrancs²⁴ was relatively similar. The process of the Sant Antoni²⁵ superblock, however, was the most comprehensive of the three. In this neighbourhood the steering group participatory sessions were structured as follows: 1) Presentation of the Programme; 2) Goals to reach and diagnosis of the area; 3) Application of the model to the local context to define the proposal; 4) Thematic session in relation to local businesses and 5) Thematic session in relation to public space. Lastly, 6) Working session to define the proposal for superblock. Once there is an agreement on the

²² Ajuntament de Barcelona. (2018). Pla d'Acció per a l'àmbit de superilles de Horta: Pla d'Acció Consensuat [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/pla_accio_superilles_horta.pdf.

²³ Ajuntament de Barcelona. (2017). *Superilles: Omplim de vida els carrers: Sessió amb veïns i veïnes d'Horta*. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/20170626_INFORME_Sessio%CC%81_Vei%CC%88nat_Horta.pdf

²⁴ Ajuntament de Barcelona. (2018). Pla d'Acció per a l'àmbit de superilles de Sants-Hostafrancs: Sessió de treball oberta a la ciutadania [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/03_SANTS_PLA_D_ACCI%C3%93_29-05-2018_v9%20CURTA%20PROJECTAR_low.pdf

²⁵ Ajuntament de Barcelona. (2019). Programa Superillas: Proceso técnico participado.

proposal (the so-called ‘action plan’), this document is presented to local associations and neighbours in an open debate.

Second, the participation process included work sessions with groups of key stakeholders to pay special attention to the voices of local traders as well as parents’ associations, and other groups such as the visually impaired - who, according to the planners, would be particularly affected by the project and do not usually have a voice in urban processes. Third, workshops open to members of the community were organised to foster open participation so that anyone in the area can be informed and participate. And fourth, the superblocks’ website was promoted as an instrument for transparency, monitoring, and community participation. All the information can be found on the municipal website *decidim.Barcelona* and interested parties could make contributions throughout the whole process through the BCC online participation platform *decidim*.

The information gathered through the meetings, the workshop, and the virtual contributions is eventually brought back to the steering group for consideration. When the technical team and the steering group agree on a final proposal, this can be presented to the *Consell de Barri* (a Neighbourhood Forum that convenes at the District Council). Works can start when the proposal is approved. Shortly after the completion of the project the superblocks participation process includes one or two follow-up sessions with the steering group to review the interventions and make the necessary final adjustments.

SUPERILLA BARCELONA

The participation process for the *Superilla Barcelona* was structured in three stages, first an information and dissemination stage, then a stage in which the different perspectives of the key stakeholder groups were incorporated, and, finally, a stage for collective consideration, discussion, and making concrete proposals. This is explained in *Figure 18*.

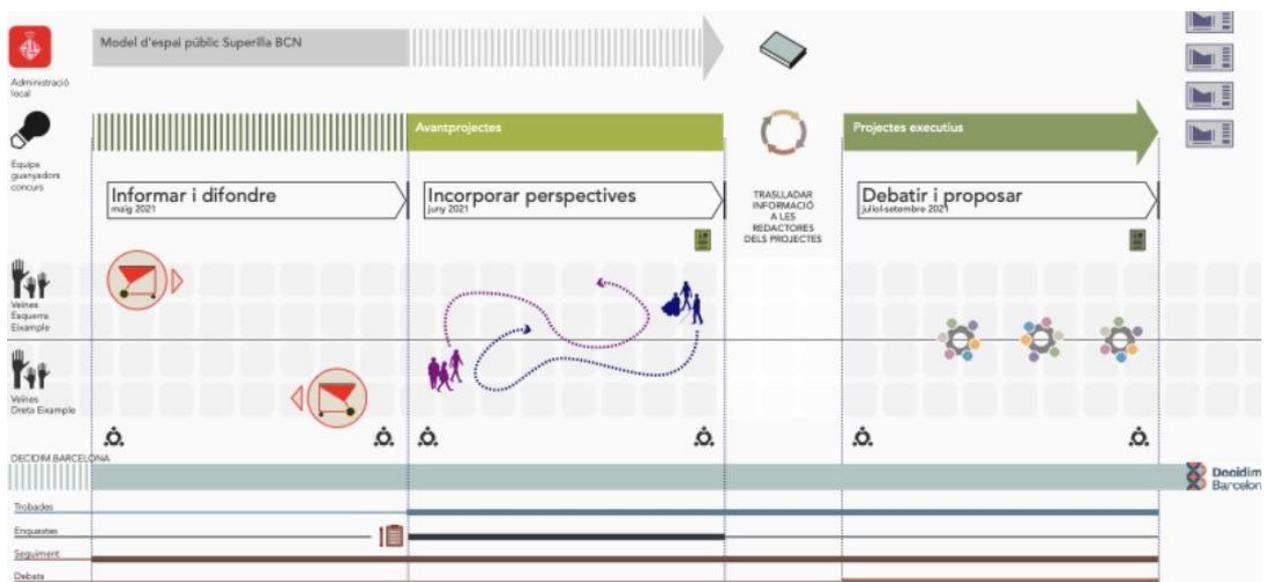


Figure 18 shows the three stages of the Superilles BCN participatory process: 1) inform: with the mobile information carts, 2) incorporate diverse perspectives: through walks with neighbours and women, 3) debate and make concrete proposals: through workshops. In the lower part, the solid grey line shows how the decidim.Barcelona portal is active throughout the whole process, as well as the work of the steering group, represented in a solid brown line (Source: decidim.Barcelona).

The *Superilla Barcelona* participation process is still underway and incorporated new methods to complement the ones used so far²⁶, including: 1) *decidim.Barcelona*; 2) The steering group; 3) Community information outings; 4) A merchants survey; 5) Exploratory walks from a gender perspective; 6) Neighbourhood walks with locals; 7) Open workshops with members of the community; 8) Open workshops with members of the community, and planners and architects; 9) Participatory sessions in schools; and 10) An information campaign for local merchants. Once the information produced with the community has been processed, the participation process wraps up with the redaction of the executive plan and its presentation at the District Council's Neighbourhood Forum. Works can start when the proposal is approved.

To find out more about the participation methods used in each superblock project, visit '**Support document 1: Participation methods**'. There, the reader will find a short description of the method, as well as comments on the target group, how people were reached, how the method was used, and some notes on success and learnings.

²⁶ Ajuntament de Barcelona. (2021, November 8). *Superilla Barcelona en el Eixample*. Retrieved from Decidim: <https://www.decidim.barcelona/processes/SuperillaBarcelona/f/4580/?locale=es>

STRATEGIES FOR REDUCING ON-STREET PARKING

The superblocks strategy promotes "mobility on foot, by bicycle and by public transport" - and discourages the use of private vehicles - by creating extensive and well-connected green axes. These axes are inherently walking networks. Walkability, therefore, is improved because public space is taken away from the car and given to people, and made greener, safer, accessible, and healthier. The spatial transformations of the green axes also support bike mobility, although cyclists must share these spaces with other users. In addition to this, the BCC is working to extend the city-wide bicycle network. Certainly, more people moving sustainably means less car-dependence, and thus, less demand for on-street parking.

At the city level, there are actions and interventions in place that seek to encourage a modal change. In relation to public transport, before the superblocks were implemented the City of Barcelona transformed its old bus network into an orthogonal network with lines oriented in either North-South or East-West directions. This resulted in better orientation, more efficient trips and better coverage. The metro line 9 - which is still under construction - is a ring line that aims to connect at the periphery the eight metro lines which radiate from Barcelona's city centre. There are also measures planned to link disconnected tram lines that run at the northern and southern ends of the Barcelona Metropolitan Area. All these local government interventions interact with and complement the *Superilla Barcelona* urban strategy.

On-street parking in Barcelona's city centre consists of blue and green zones, loading zones, motorbike parking, and on-street parking for vehicles owned by persons with reduced mobility (*Figure 19*). The green or residential zones are parking spaces reserved for Barcelona residents. To park in green zones, if you are not a resident, there is the option of paid parking for one or two hours (depending on the sign). The green zone is open from Monday to Friday from 8:00h to 20:00h. After 8 pm, these parking areas are exclusive for Barcelona residents. The blue zone is a paid parking zone for everyone, with a time limit ranging from 1 to 4 hours. The blue zone in the city centre is open from Monday to Saturday from 9:00h to 20:00h. Outside these hours, parking is free of charge. According to the BCC website, the percentage of registered vehicles in Barcelona neighbourhoods, which hold a 'residents permit', is around 8-12%²⁷. The remaining available parking is off road, in public or private underground car parking. Regarding the latter,

²⁷ This information is from the Superilles Q&A section and can also be found in some public statements from 2017 quoting Janet Sanz. To access the BCC's Q&A section on superblocks, visit this link <https://ajuntament.barcelona.cat/superilles/en/content/questions-and-answers>

the BCC maintains that the Eixample is characterised by a surplus of underground parking spaces²⁸.



Figure 19 shows regulated parking in a section of the Sant Antoni superblock. Legends: blue lines represent blue parking zones and the green lines, green parking zones; pink lines indicate bicycle parking; yellow stands for loading zones; purple shows motorbike parking; red lines represent parking for people with reduced mobility; and dark red indicates reserved parking zones. This is just a small section, yet the whole district of the Eixample is regulated in this way (Source: Ajuntament de Barcelona).

However, having available on-street parking seems to be a main concern for residents and other persons who visit the superblocks on a daily basis. With this in mind, at the beginning of a superblock implementation process, superblock planners carry out a diagnosis of the parking network (along with an analysis of other functional networks such as the bicycle, public bus, and loading zones). In the implementation of the Sant Antoni²⁹ and Horta³⁰ superblocks, the diagnosis, along with the proposed changes, were presented and debated early on in the participation process at the Steering Group work sessions.

²⁸ This information is from the Superilles Q&A section and can also be found in some public statements from 2017 quoting Janet Sanz. To access the BCC's Q&A section on superblocks, visit this link

<https://ajuntament.barcelona.cat/superilles/en/content/questions-and-answers>

²⁹ Ajuntament de Barcelona. (2017). 3a Reunió de treball per l'àmbit de superilles de Sant Antoni [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/170613_Presentacio%CC%81_Gl_StAntoni.pdf

³⁰ Ajuntament de Barcelona. (2017). Reunió de treball per l'àmbit de superilles de Horta [PowerPoint slides]. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/170607_Presentacio%CC%81_HORTA_Comerçiants.pdf

According to the *Superilles* website³¹, the implementation of Superilles in Barcelona represents an average on-street parking reduction of 1%³². Considering this figure, ideas for public provision of parking alternatives - such as local government subsidies for underground parking - were contemplated at an initial stage, but quickly disregarded. Barcelona superblocks website maintains that the overall change in terms of on-street parking is of little significance for the city. Moreover, as Superilla Barcelona Head Architect Rosa López³³ argues, the main goal of the superblocks project in Barcelona is to discourage people from using private vehicles, and any attempt to compensate for on-street parking would undermine such a goal.

³¹ Ajuntament de Barcelona. (2021, December 5). Questions and Answers. *Superilles*. Retrieved from: <https://ajuntament.barcelona.cat/superilles/en/content/questions-and-answers>

³² This information is from the Superilles Q&A section and can also be found in some public statements from 2017 quoting Janet Sanz. To access the BCC's Q&A section on superblocks, visit this link <https://ajuntament.barcelona.cat/superilles/en/content/questions-and-answers>

³³ Superilla Barcelona Head Architect Rosa López, personal communication, October 26, 2021.

MONITORING & INDICATORS

CHANGES IN THE NATURE OF THE INDICATORS

The indicators used to measure the impacts of the superblocks projects have evolved since the first superblock was implemented in Poblenou. In the same way the superblocks theoretical project had to adjust the reality of Barcelona's districts, the indicators to measure their impact also changed with the evolution and territorialisation of the urban strategy. Rueda's and Barcelona Urban Ecology Agency's theoretical superblocks model and indicators were developed in an academic context. According to Rosa López, these indicators were complex and very scientific, to the point that they proved to be rather confusing when applied to real life settings such as communication with the public. Journalists, planners, politicians, etc. found it hard to interpret such complex indicators. Moreover, the indicators' calculations required information that was often not available, hence, those in charge of monitoring and evaluation usually resorted to working with hypothetical cases and modelling instead of factual data. The approach to the indicators system changed with the Sant Antoni superblock implementation. Consequently, monitoring and evaluation efforts are now put towards collecting basic data - which can be later related to each other to create more complex indicators.

COMPREHENSIVE LIST OF INDICATORS FROM BARCELONA

The table below lists the indicators used to measure the impact of the different superblocks projects. The project implemented in Poblenou, under the local government's initiative *Omplim de vida els carrers* (Fill the streets with life)³⁴, encompasses the most comprehensive set of complex indicators, developed by the Barcelona Urban Ecology Agency³⁵. The list also includes the indicators used in the aforementioned report by the Barcelona Public Health Agency³⁶, and those present in the BCC's presentations of the action plans for the superblocks discussed in this document.

To access the table, please visit '**Support document 2: Superblock indicators**'.

³⁴ Ajuntament de Barcelona. (2016). *Omplim de Vida els Carrers: La implantació de les Superilles a Barcelona*. Retrieved from https://www.slideshare.net/Barcelona_cat/mesura-de-govern-oomplim-de-vida-els-carrers-lla-implantaci-de-les-superilles?from_action=save

³⁵ Agència d'Ecologia Urbana de Barcelona. (2015). *Superilles pilot al districte de Sant Martí: Informe Diagnòstic Situació Actual*. Retrieved from: https://ajuntament.barcelona.cat/superilles/sites/default/files/20150217%20%20Diagnostico%20Superilla%20Poblenou%201_0.pdf

³⁶ Agència de Salut Pública de Barcelona. (2021). *Salut als Carrers: Avaluació dels àmbits Superilles*. Retrieved from: <https://www.aspb.cat/documents/salutalscarrers>

INDICATORS CURRENTLY USED BY THE SUPERILLA BARCELONA URBAN STRATEGY

As of December 2021, there is no document that comprehensively collects the indicators used by planners to monitor and evaluate the impact of the Superilla Barcelona urban strategy. Superblocks planners are currently working on putting a document together, and Rosa López expressed that it will be ready around the beginning of 2021. The types of data that superblock planners are interested in collecting are divided into five themes: 1) Mobility, 2) Environment, 3) Habitability, 4) Socio-economic, and 5) Health.

1. **Mobility:** Data on the mobility of pedestrians, bicycles, and motor vehicles. They measure this with traffic counters and want to implement cameras that can count without compromising the privacy of users.
2. **Environment:** Data on air quality (NO₂ and PMs); as well as on the evolution of environmental noise. They have measuring stations scattered across the Eixample district.
3. **Habitability:** Data on green areas per m², benches per m², spaces of stay per m², number of fountains per m², play areas per m², number of trees per m².
4. **Socio-economic:** To understand the impact of gentrification processes, the evolution of rent prices is tracked both in relation to private housing as well as retail rent. Moreover, data is gathered to understand the usage of credit cards in the area. Increased use of credit cards indicates greater commercial vitality.
5. **Health:** Qualitative surveys are developed to monitor the evolution of neighbours' healthy behaviours in public space. x