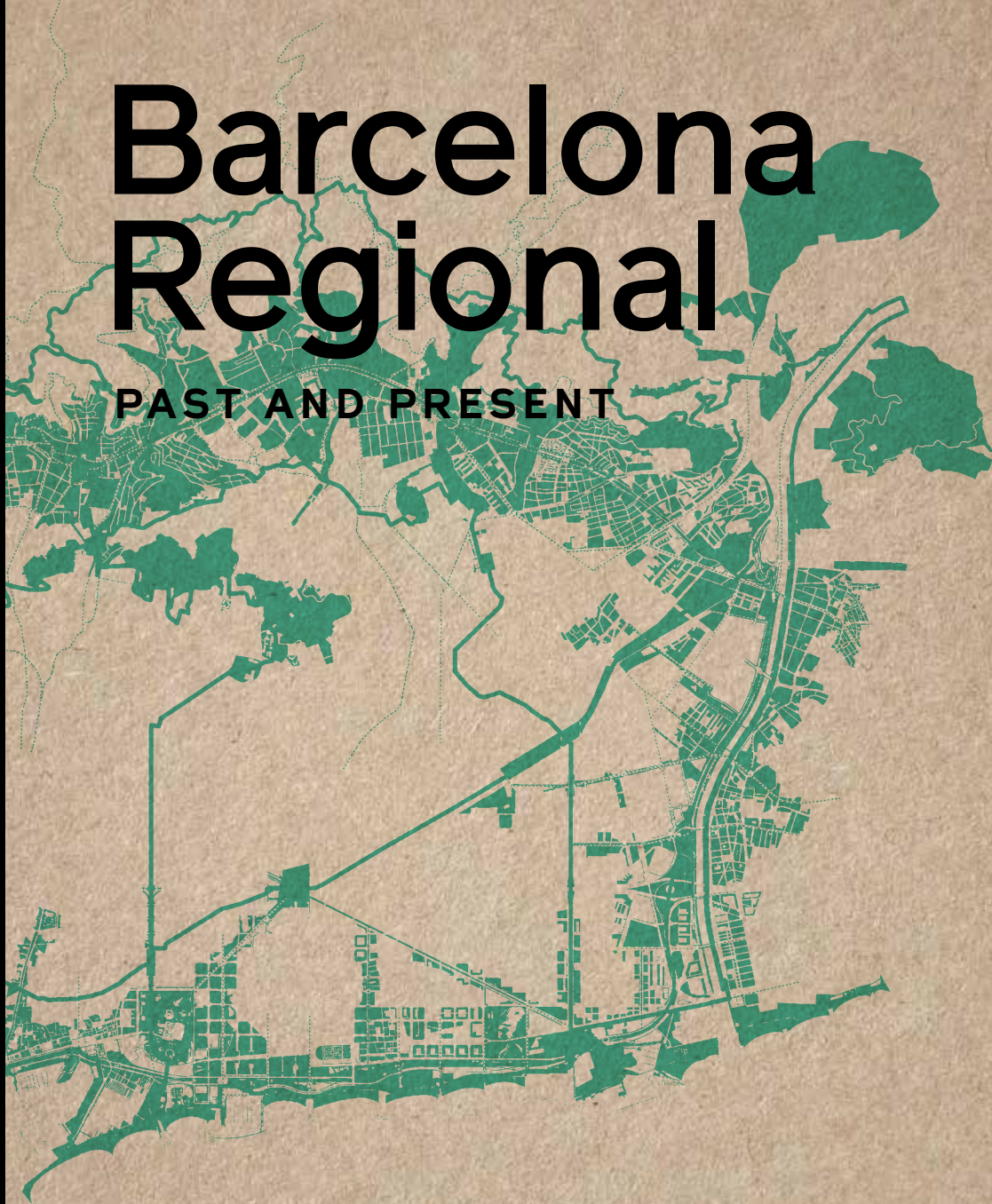


# Barcelona Regional

PAST AND PRESENT



# Barcelona Regional

PAST AND PRESENT



6	PROLOGUE_____The Perspective of Barcelona Regional_____	JANET SANZ
8	INTRODUCTION__Present_____	JOSEP BOHIGAS
18	_____Meeting the Goose_____	CARLES COLS
40	AGENCY	
42	_____The Creation of Barcelona Regional_____	RAMON GARCÍA-BRAGADO
50	_____Ideas_____	MIQUEL SODUPE
54	_____Thank You_____	WILLY MÜLLER
58	TEAMS	
60	_____Barcelona Regional Is...	
70	_____The Berremites_____	CARLES COLS
80	_____2018 Data	
82	TIMELINE	
88	WORKS	
90	_____Fruits_____	JUAN CARLOS MONTIEL
102	INTRA-RONDES	
146	RONDES TERRITORY	
216	EXTRA-RONDES	
246	INTERNATIONAL	
262	_____Futures_____	JOSEP BOHIGAS

# The Perspective of Barcelona Regional

**JANET SANZ**

Fourth Deputy Mayor of Barcelona and Vice-President of Barcelona Regional (2015-...)

The initial collaboration between the municipal teams and Barcelona Regional (BR) has progressively expanded and intensified over the years, enriching the preparation of the plans and public policies we implement in the city. In parallel to the evolution and growth of the complexity of the public's demands, BR has incorporated professionals from various specialities into its team and Barcelona City Council has adapted its departments to respond to changing urban dynamics. Even with regard to their names: from the Urban Development Area of the 1980s to the current Ecology, Urban Development and Mobility Area. And to their responsibilities: climate change, air quality, noise and inclusive urban development have been added to planning and infrastructure.

For the City Council, which has teams dedicated exclusively to handling the everyday management of the city's districts, having access to the BR technical team means it can tackle matters beyond today's pressing issues and beyond its administrative limits. Being able to juxtapose problems, challenges, ideas and visions of the city with a long-term perspective allows us to prepare policies and projects that are more efficient and better adapted to citizens' everyday problems, and respond to important matters before they become problems or degrade the urban habitat. They are documents that have forced us to look towards a horizon in which we will have to face challenges that cannot be postponed, such as climate change, new mobility paradigms, the right to housing and the challenges brought about by tourism. Having experts in each one of these areas has been of immense help in drawing up the various plans and policies that need to be generated to tackle them.

After all, it was for this very reason that BR was created—to overcome challenges that do not lie within the strict confines of a particular subject area or territory. The way it works often means that it goes much further than requested, partly because the specifics of many of the projects commissioned are left opened to inter-

pretation, a necessity in light of the degrees of uncertainty that thinking in the long term produces. This way of working, freer and unencumbered by day-to-day needs, often means that BR's work surpasses its clients' expectations and that it ventures into new areas of expertise, or even treads on a few toes.

One of the fronts where the City Council has found the key support it needs in BR is in areas bordering neighbouring municipalities, many of which include the metropolitan area's most vulnerable districts, socioeconomically speaking. In the past, their peripheral location made it difficult for local councils to find solutions to many of their problems, but now this situation has radically changed thanks to the consolidation of metropolitan Barcelona in recent decades. Today many of these districts constitute new urban hubs and present opportunities for improvements to be made in terms of social cohesion and urban quality, challenges that can only be overcome when municipalities stand together and cooperate with each other. It is in these cases where BR's contributions have proved pivotal, such as in the area around the river Besòs, where five municipalities have collaborated to define a future agenda for the 98 neighbourhoods lying within this territory: the Besòs Agenda.

In its 25 years of existence, BR has amassed a wealth of information, some of which has been fully implemented in its projects, while much more is still pending application in new plans. It is not just its proposals, but also its ability to comprehensively gather data and apply analysis techniques that have led to it being one of the major suppliers of information for the city's projects. Air quality, coastal dynamics and the Normalized Difference Vegetation Index are some of the information sources that BR periodically updates and interprets. In this sense, BR is an essential tool in the preparation of plans and programmes as innovative and far-reaching for the city as the Metropolitan Housing Observatory, the Special Urban Plan for Tourist Accommodation (PEUAT) and the Amendment of the General Metropolitan Plan (MPGM) for a 30% level of social housing on consolidated urban land in order to increase the number of affordable homes. These policies are based on solid evidence rooted in georeferenced data gathered and processed by BR in accordance with the changing needs of the various departments of the City Council. They represent structural changes that will clearly have a strong impact on the urban dynamics of the immediate future.

Above all, BR is its people. All the people who over the last 25 years have formed part of this great team. People who are exceptional professionals and without whom Barcelona and its metropolitan area would not be what they are today.



# Present

## 25 Years on Permanent Alert

JOSEP BOHIGAS  
General Director (2016—...)

••  
**‘BR has been present in Barcelona’s major transformations in the last 25 years, incorporating methodological and content changes into the way urban development is handled’**

When couples, associations, companies or agencies reach their 25<sup>th</sup> anniversary, it is a memorable event that should be celebrated. The accelerated transformations and emergencies of society and of life itself force us, day after day, to reconsider our feelings and the suitability of past connections. While our needs of 25 years ago required specific structures to meet the challenges of the time, today these challenges have changed, and most probably the people who detected and tackled them may no longer have the training or the emotional availability to take on new commitments. This is why both family and company commitments to permanence must be built on the understanding that they will change and require a constant, day-by-day capacity for adaptation. To celebrate 25 years of any company, then, is to celebrate its tenacious, ongoing transformation.

→ 178, Delta Plan.

→ 193, Fòrum.

→ 150, Environmental Recovery of the river Besòs.

→ 104, La Sagrera.

The 25th anniversary of Barcelona Regional (BR) is no exception. The creation of the agency dates back to December 1993, the result of a series of situations related to the end of the Olympic Games. BR was created to retain the enormous talent of a technical team that had performed the miracle of undertaking the city’s most significant transformation in recent history with the desired quality and timeliness. The new agency was brought into existence with two consecutive missions: first, to push on with the long list of pending projects, and second, to reconsider new urban challenges, on the back of the successful Olympic model. Thinking big, incorporating metropolitan projects that aimed to comply with the public’s continuing high expectations after the Games.

The planning of the arrival of the high-speed train to La Sagrera ↗, the environmental recovery of the river Besòs ↗, the transformation of the Llevant beach sector of coastline, the Fòrum ↗, the expansion of the airport, the port and the deviation of the Llobregat river ↗ are some of the strategic projects that BR took on in its early days, and to which many others have subsequently been added with varying degrees of importance in response to new sensitivities and a variety of different political focuses. BR’s trajectory over this quarter century runs parallel to the history of Barcelona, incorporating methodological and content changes into the way urban development is handled. While in the beginning the agency focused mainly on the implementation of infrastructures, over time its interests have swung towards environmental concerns and the growing number of pressing social needs.

### TRANSGRESSION, BALANCE AND CAPACITY FOR ADAPTATION

In this sense, BR has transgressed limits (technical and political) and has adapted to changes, evolving towards becoming a more complex organisation that incorporates a richer variety of disciplines. An evolution that was already planned in the bold choice of its original name: Barcelona Regional. The agency was created by Mayor Pasqual Maragall and the architect Josep Anton Acebillo with the idea of going beyond the city of Barcelona, setting policies in agreement with the rest of the metropolitan municipal-

ities. This aim was a direct consequence of the unfortunate dissolution of the Barcelona Metropolitan Corporation by the Executive Council of the Government of Catalonia in 1987. This awful political decision cut the head off metropolitan governance and engendered within Barcelona City Council the positive reaction of maintaining a high-quality technical body to continue coordinating the strategic projects of the vibrant emerging metropolis.

••

**‘BR has transgressed limits (technical and political) and has adapted to changes, evolving towards becoming a more complex organisation that incorporates a richer variety of disciplines’**

BR is, therefore, an instrument of the local administrations (Barcelona City Council and Barcelona Metropolitan Area) designed to work on aspects where the cities exceed their limits not only in terms of territory, but also in terms of organisation (between separate departments), administration (between local, regional and state governments), disciplines (engineering, urban development, environment, mobility, housing, etc.), timescales (short, mid and long term), scales or even certain conceptual and communicative limitations (city model, narrative, etc.). It could be argued that BR operates in all these complex border territories. This situation, which is both fragile and fertile, has allowed it to develop a high capacity for adaptation in spaces where administrations are likely to find the most difficulty integrating strategic outlooks due to the ineludible need to handle urgent day-to-day needs.

In biological terms, BR is like an amoeba, given that it has the capacity to change and adapt its form in accordance with its needs. At certain times it may be more like a think tank, an engineering company, an architectural firm or a consultancy. In some cases it can be all of them at once, for example in the river Besòs ↗ projects, where it has participated in every phase at different times. These projects range from the environmental recovery of the river bed and the river park ↗ in 1997, for which BR handled the executive and site management, to the current Besòs Agenda ↗, which encompasses 130 projects of all kinds and scales with the aim of improving the surrounding neighbourhoods.

↗ 159, Besòs Agenda.  
↗ 150, River Besòs Environmental Recovery Project.

↗ 148, Besòs.

In military terms, BR could also be defined as an elite corps prepared to tackle projects involving a high level of complexity and a broad range of disciplines. I remember that Josep Anton Acebillo defined it as the “Praetorian Guard” of the metropolitan mayors, which they took with them when they had to present technical arguments to their opposite numbers in the Ministry or in the Government of Catalonia. Not long ago Acebillo himself recalled us with pride: ‘Maragall never negotiated with the Ministry without being armed with a good proposal from BR under his arm’.

••

**‘The vast breadth of subjects that are covered and the curiosity of the teams keep the agency in a permanent state of alert in relation to new challenges, new work methodologies, the latest technological advances and the main theoretical discussions regarding the areas it deals with’**

However, the agency’s great capacity for reflection, adaptation and reaction has often caused misunderstandings in the technical teams of other administrations. Although in recent years this has been somewhat smoothed out thanks to very high degrees of complementarity and cooperation, BR does not and will never stop treading on people’s toes wherever it sticks its nose. The vast breadth of subjects that are covered and the curiosity of the teams keep the agency in a permanent state of alert in relation to new challenges, new work methodologies, the latest technological advances and the main theoretical discussions regarding the areas it deals with. This may lead, in certain cases, to passions being raised when different methods collide, usually interpreted as competitiveness, but sometime even as arrogance, although in most cases this confrontation is necessary to open up the perspective of the projects to other scales, territories and disciplines.

## ACCENTS AND CONTINUITIES. FROM *URBS* TO *CIVITAS*

Each leader has contributed new accents to the agency, which are nothing more than reflections of society’s deep transformations and the political changes they engender. Initially, urban development projects pivoted around the physical transformation of the city, what was classically called the *urbs*, where the public space, the facades and

the major infrastructure were the visible protagonists and the best stage for the development of life. These beginnings and this strategy have yielded very good returns in terms of Barcelona's projection in multiple indicators, placing it at the top of the lists of the best European cities. Over time and successive crises, this international success has ended up masking other devastating indicators concerning inequality, precariousness, health, housing and predatory tourism, which have meant that this positive interpretation of the city's physical reality is not as absolute as it may seem. The city is made up of stones, but also of people, what is classically termed the *civitas*.

The pressing social realities that coexist (harmoniously or not) on a stage as spectacular as our city have been practically ignored, or even made invisible, behind (overly) beautiful facades erected to the dazzle visitors and property investors. Facing these realities requires a deep change in urban development strategies, placing people at the centre of all policies for transformation, forcing us to reforge, or at least evolve, our classical urban development tools.

Some of the projects we have undertaken at BR over the years are testament to this: the PEUAT ↗, which regulates tourist accommodation; the MPGM to provide 30% of social housing on consolidated urban land ↗; the creation of the Housing Observatory (O-HB) ↗; the inclusive urban development manuals, the climate change strategies included in Barcelona City Council's Climate Plan ↗; the Metropolitan Area water cycle master plan ↗ and the Besòs Agenda ↗ are highly ambitious and transformative projects, but they do not (only) cover the physical reconstruction of an area or a use, but (also) the deep structural transformation necessary to change the rules and dynamics in order to improve people's quality of life, guaranteeing their right to the city and to the metropolis.

#### A CELEBRATION IN TWO VOLUMES: PAST AND FUTURE

This publication aims to be much more than an institutional report on the work that BR has done in the last 25 years. It is a double publication with a singular design that aims to highlight the role of the agency as an instrument of reflection and innovation for Barcelona

City Council and Barcelona Metropolitan Area. The publication is divided into two volumes, presented together in a single box, with the aim of reviewing the past and looking towards the future.

The first volume (which you have in your hands) focuses on the people who have directed and worked at the agency, and on the most emblematic projects they have carried out in the last 25 years. Mayors of Barcelona, directors and employees tell the story of BR's close relationship with the metropolis's transformations and how the agency has been capable of adapting by incorporating multiple methodological innovations into the way the city is designed and operated. Proof of this are the more than 2,000 projects that BR has completed over these 25 years, 100 of which have been selected and summarised in the form of datasheets and contextualised on a timeline.

••

**'Some of the projects we have undertaken at BR in recent years are highly ambitious and transformative, but they do not (only) cover the physical reconstruction of an area or its use, but (also) the deep structural transformation necessary to change the rules and dynamics in order to improve people's quality of life, guaranteeing their right to the city and to the metropolis'**

The second volume aims to be an open reflection on the future of metropolitan cities, using the case study of the Rondes (Ring roads) to reconsider their effects (or defects) as a territorial border. It offers multiple outlooks that raise a kaleidoscope of challenges that are opened up to BR's shared reflection with other agents, such as universities, external professionals and even the subjective opinions of citizens who explain their "intimate" relationship with an urban motorway that, as such, has its days (or more likely, years) numbered.

You are invited to celebrate it with us by reviewing these past 25 years and to accompany us in the 25 years to come. Congratulations and thanks to all those who have made it possible for such a unique agency to exist and evolve, an agency which, I am sure, will continue to use its nose, hands, head and experience to serve our metropolis and its citizens.

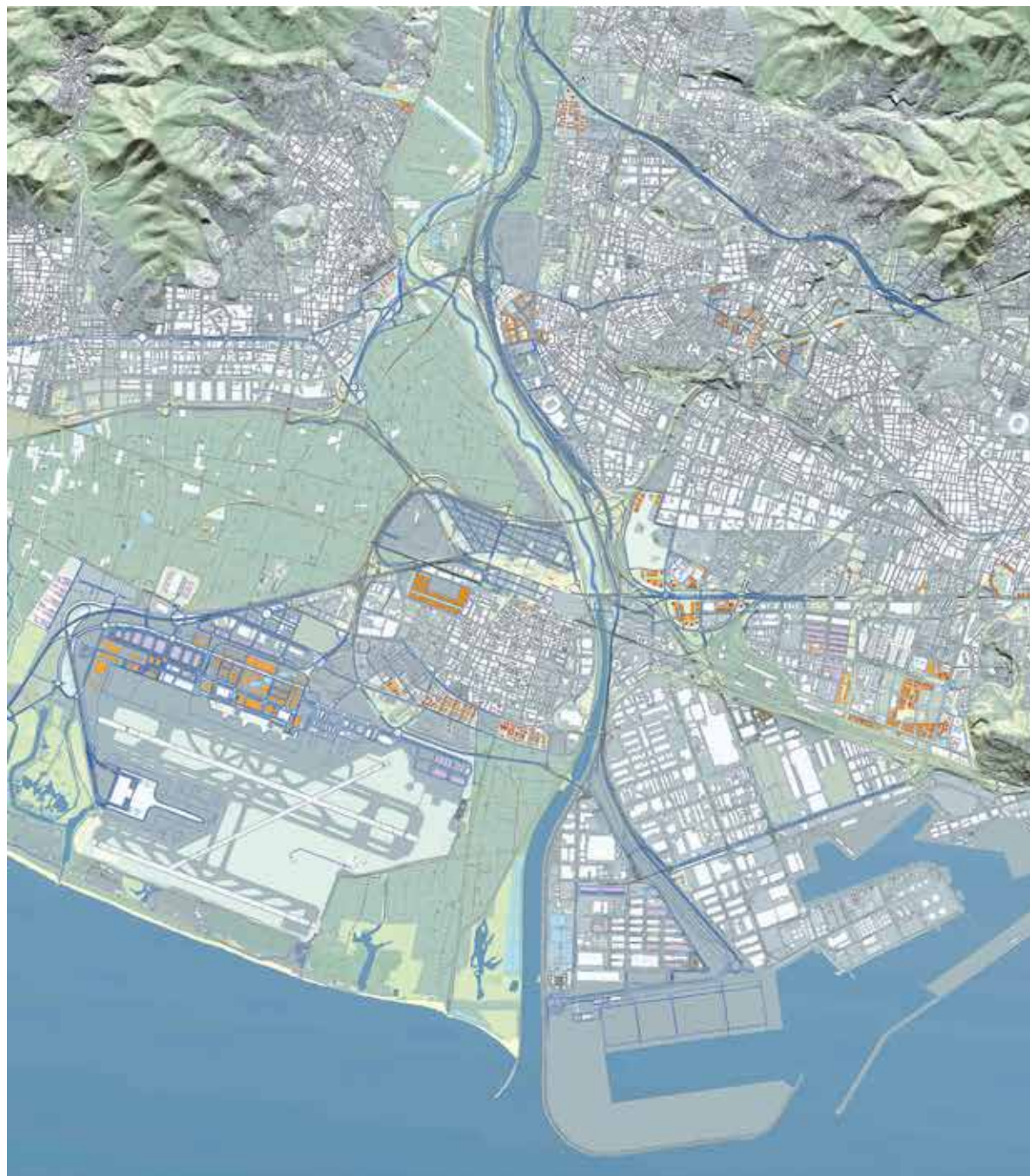




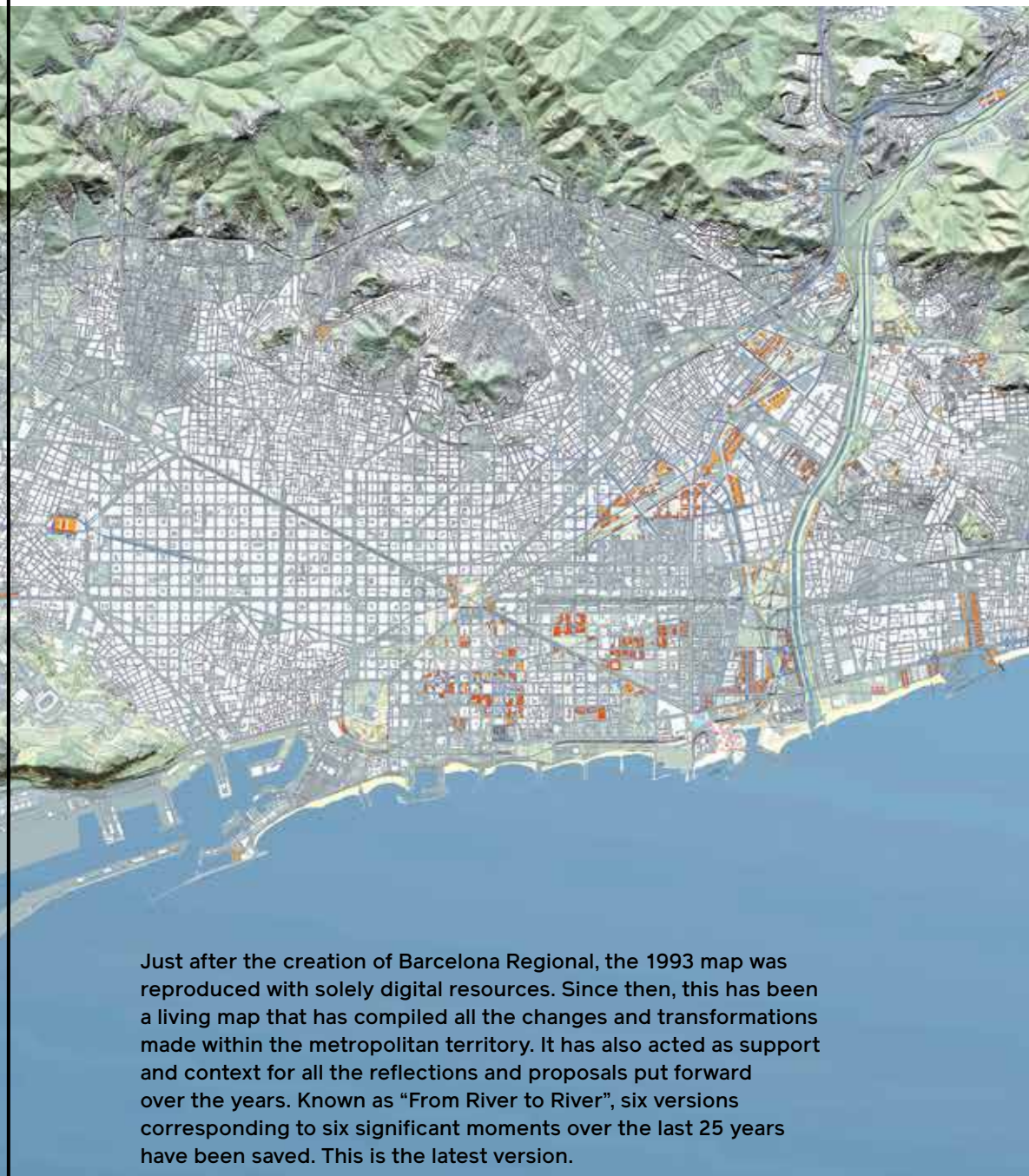
This map was given to Barcelona Regional by the Municipal Institute of Urban Development Promotion (IMPU), along with its furniture and office material. With a *mixed technique*—with digital and manual media—the map shows the transformation of the city for the Olympic Games within the metropolitan territorial framework.

1993





2018



Just after the creation of Barcelona Regional, the 1993 map was reproduced with solely digital resources. Since then, this has been a living map that has compiled all the changes and transformations made within the metropolitan territory. It has also acted as support and context for all the reflections and proposals put forward over the years. Known as “From River to River”, six versions corresponding to six significant moments over the last 25 years have been saved. This is the latest version.

# Meeting the Goose

The paternity of Barcelona in recent years could be disputed, but its mother is without doubt BR, and it has just celebrated 25 years of life

**CARLES COLS**  
Journalist

••  
**‘BR is an exceptional accumulation of talent under a single umbrella, a kind of Aristotelian Academy, but for engineering and architecture’**

This text has been written by Carles Cols based on conversations with the mayors of Barcelona from the last 25 years, Joan Clos, Jordi Hereu, Xavier Trias, and Ada Colau, and the architect Josep A. Acebillo, who was commissioned by Mayor Pasqual Maragall to create Barcelona Regional and was its CEO for eighteen years. The format, size and tone are in line with the author’s criteria.

Hola! It may not be the most elegant way of greeting new people, but it is what Barcelona chose to say to the world in the opening ceremony of the Olympic Games, organised under the baton of Carles Santos, the Joan Brossa of music, with hundreds of dancers on the stage. It was July 25<sup>th</sup>, 1992. At that time, Barcelona Regional did not even exist. This would be a good starting point to pay homage to the first quarter century of Barcelona Regional, BR to its friends, even though it seems to be an onomatopoeic exclamation used by comic strip characters to show they are cold: “Brrr!”.

On that 25<sup>th</sup> of July, BR did not yet exist, except, perhaps in Pasqual Maragall’s mind. We could establish that date as the starting point of this vital journey because, whomever you talk to, everyone chronologically associates the seminal moment with Montjuïc, with the Ring roads, with Rebollo’s arrow, with Fermín Cacho’s great victory and with the conquest, finally, of the city’s coastline. But before we continue this story, we have to go back twenty centuries to gain a little perspective. Off we go.

In Suetonius’s time, Barcelona was nothing special. It was merely a second-rate colony. But it was strongly fortified. This represented an evolutionary advantage over the other more renowned settlements in Hispania. This is perhaps a subject worthy of discussion and analysis in another forum or in another book, if anyone is interested... What concerns us 2000 years ago,

however, is not the Colonia Iulia Augusta Faventia Paterna Barcino, but Suetonius, the author of a dozen excellent biographies of the Caesars, all of which were extremely interesting and perspicacious. Suetonius’s description of Julius Caesar is so detailed that he even includes the jokes told by the troops when marching with their general, such as: “Citizens, hide your wives, we bring here the bald adulterer.” In Vulgar Latin it even rhymed. Suetonius is also a good source to identify the liberties taken by Shakespeare centuries later. One of the Bard’s best inventions was Mark Antony’s long speech before the stabbed cadaver of Julius Caesar. Apparently, what he really said were a few insubstantial words, so little in fact that not even Suetonius could be bothered to record them.

Biographies without solid documentary sources are worthless. That is the question. They are even better if they are based on the true story of their protagonists. These are, partly, the foundations upon which this deserved homage to BR is built, a series of enriching chats with the mayors of Barcelona that this company has known in its first 25 years of life, that is, Joan Clos, Jordi Hereu, Xavier Trias and Ada Colau. The absence of Pasqual Maragall is noteworthy, given that he is the cornerstone upon which the story should be built. His health, as you know, sadly precluded an opportunity to interview him. His voice is represented here by the person who was for a long time the progenitor, the midwife, the putative



father and the person responsible for the adult success of BR, Josep Anton Acebillo, a man who is truly unforgettable, a polysemic term who everyone may interpret in their own way. Before continuing, I would like to thank him and the mayors. Those who decide to continue reading should be warned that complete fragments of Acebillo's memories will be reproduced without omissions, because their biographic value is unquestionable. It is possible that Suetonius had an Acebillo, his very own indispensable historical source. And if this was the case, he did not make it clear in his writing. This will not be the case here. Therefore, thanks to all.

The simplest, most natural and most predictable takeaway when studying the logbook of everything that happened after the Olympics is that BR, in truth, might not have existed. BR was a seed with very few chances of germinating, considering the political and administrative situation at the time. Joan Clos recalls this context very clearly. After a good Olympiad, he said, you usually have a terrible hangover. The one after Montreal was tremendous. As was the one after Mexico City. The one after Munich, for other reasons, was painful. 'Other cities had been left without a narrative'. After dousing the cauldron, their progress is somewhat disorientated. It was a type of unwritten law. I will ask for forgiveness in advance for this comparison, but the International Olympic Committee was, before

Barcelona came on the scene, like a female praying mantis and the city, supposedly grateful for mating, was her mate. A description of how this relationship ends is not necessary, although, occasionally, very occasionally, the male does survive. Saying that other cities did not have Pasqual Maragall in charge might seem politically correct, but actually the then mayor of Barcelona, after the Olympic Games, was adrift on a sea of doubts. 'Pasqual was worried. He didn't know what to do. He was weighing up whether or not to stand for election again. The success of the Olympic Games was unquestionable, but the world had entered an economic recession that, even though it was less tangible in Barcelona, was as heavy as a gravestone'. He had been the mayor since 1982 and, to a certain extent, he saw on the horizon that he would have to face his harshest rival, himself, or, more precisely, he would have to compete with the idealised image that Barcelona's citizens had formed of him. Gabriel García Márquez perhaps felt the same temptation after writing *One Hundred Years of Solitude*. How could he exceed that literary Everest? Did Pasqual Maragall have eight-thousanders left to conquer in municipal politics? He could have stood down. Without him, it is possible that BR would not have even been suggested.

It is said that when Camilo José Cela was awarded the Nobel Prize in Literature (nothing we can do about that now), García Márquez sent a message to the author



Joan Clos and Pasqual Maragall, 2004.

••

**'Pasqual Maragall was adrift on a sea of doubts after the Olympic Games. He was not sure whether to face his harshest electoral rival: the idealised image that the people of Barcelona had of him. BR might have not existed'**

of the *The Hive*: 'From now on, Camilo, you will experience the greatest pleasure of having a Nobel prize: not wondering whether you'll get one'. That's what he told him. This is maybe what happened at City Hall in Plaça de Sant Jaume, a lucid moment of disinhibition that gave

the confidence to face that other Olympic cities had not.

'Our first objective was to not be an economic failure', recalls Clos. It was certainly a laudable objective, but the way of achieving it was a bold step indeed. 'Our reflection in the height of a recession was that we needed an instrument that would go beyond Barcelona, that would go from the small scale to the grand scale, to strategic conception...' In short, continue, keep going, clear the path for the infrastructure Olympics. *Citius, altius, fortius*, but in terms of engineering and architecture. The Olympic Games had already done something that had not been seen in these parts since the dissolution of the Union of Municipalities:



the Rondes (the ring roads), an enormous urban development upturn that brought together ten municipalities in the metropolitan area.

The event in 1992 clearly produced much more than the city's ring roads, of course. Sometimes, our memories are short, so, every now and again, we should refresh them. Clos recalls, and it is true, that before the Olympic Games, something as ordinary as calling Madrid was a Via Dolorosa with a Calvary at the end. Either a connection could not be made or, if it could, you had to hold the phone really close to your ear. Therefore, the pain was literal. This technical obstacle was also solved before BR, thanks to the Olympic Games, but the electrical, airport and railway obstacles were still in the in-tray. The post-Olympic indigestion that other cities had suffered was to be avoided, remembers Clos. For this reason, and in spite of it, something daring was placed on the table: to create a new company co-owned by various public administrations and bodies, completely unrelated to the existing ones, with the risk that old suspicions just four years after the major parliamentary battle that decapitated the Barcelona Metropolitan Corporation would rise up again. The fact that the new player on the stage was given such a wishy-washy name, Barcelona Regional, making it seem like a useless public company, was due in part to those political balancing acts. It seems that no alarms on the other side of Plaça de Sant Jaume (in the offices of the Government of Catalonia, which are located right

across the square from the City Council of Barcelona's headquarters) were triggered. It was an epiphany, considering the results. It would have been more coherent, moreover, if it had been created within the existing metropolitan structures, but, as Clos states, they were too complex, 'too baroque for our purposes'. BR, if we are going to continue with eccentric comparisons, was Mowgli. A free creature.

••

**'The name, Barcelona Regional, is possibly one of its best decisions. It sounds like a non-entity. It did not ignite any old jealousies on the other side of Plaça de Sant Jaume'**

It is often said (so often in fact that it has become tiresome) that Barcelona does not know how to grow or change without major events (1888, 1929, 1992, 2004...) or violent episodes (1714, 1835, 1909...). In truth, Barcelona's true path, not that of the Barcelona within the limits of the 102 km<sup>2</sup> of its municipal area, but the mental, and much more extensive one, is to be found in decisive moments, times when it was clear that everything would have gone differently had the chosen path not been the unexpected one. The same thing happened in this city, completely inappropriately, when the French-style project put forward by Antoni Rovira i Trias for the Eixample expansion was

discarded and Ildefons Cerdà's geometry was imposed. This was truly a decisive moment, oh yes!, and not the one that Frank Capra proposed in *It's a Wonderful Life*.

This seminal BR moment, a decisive crossroads, is remembered by Acebillo from a different, yet complementary, perspective to that of Clos. 'When the Olympic Games ended, many, but not all, of its technicians, sought and found good jobs, but Maragall warned that the outcome would be dire if all the know-how accumulated from 1992 were not directly used to benefit the public administration'. If the Olympics were Barcelona's Manhattan Project, it would be a shame if the *Oppenheimers* of each academic discipline simply returned to their university chairs, like the father of the atomic bomb did. Acebillo recalls that the option of creating a mixed (public and private) company was considered, but even the fact that this solution was discarded because of its dubious legal viability did not dissipate doubts. What, how and why? These were the questions that needed an answer.

Acebillo explains that inspiration had to be sought on the other side of the Atlantic. The development authorities in place in some major US cities were studied. Particularly those in Boston, where they were highly efficient and influential when it came to making strategic decisions. It was necessary to bid farewell to European traditions in this field, as they were, according to Acebillo, old and inefficient. Maragall

tipped the balance in this decision, as was to be expected. You only need to look at his academic career to understand how at the inception of BR the planets fell into alignment. Maragall graduated from New York's The New School for Social Research in 1973 with a degree in Urban Economics. It was not unusual for him to look west for inspiration.

If you want to read the founding articles of association of Barcelona Regional, they must be around somewhere. You'll have to find them yourself. The interesting thing about them is what you read between the lines, as Acebillo explains. 'Tactically, BR had to be a type of Praetorian Guard that would allow the Mayor of Barcelona and the municipal government to be equipped with more rigorous arguments about systems and infrastructures when institutionally discussing new territorial options'. In its way, the construction of the Ring roads for the Olympic Games allowed Barcelona to overcome its narcissistic and introspective outlook, understand that its future would increasingly be decided outside the municipal limits and that, when the time came, if a councillor sat down, for example, with a high-up from the Spanish Ministry of Development, they would address them as an equal, without adhering to protocol, that is, they would be capable of communicating in the same technical language. In truth, this could summarise what BR is, an accumulation of exceptional talent under a single umbrella serving a set of

administrations that separately would not have this firepower, a type of Aristotelian Academy, but for engineering and architecture, established only for thinking. But to think what? All possible Barcelonas, which is easy to say.

We will look at this again later, shining a light and a magnifying glass on some of those futures anticipated by BR, but to see how intelligent that decision was, we have to take a leap forward in time to the five years in which Jordi Hereu was the Mayor of Barcelona, from September 2006 to July 2011, which was chronologically the period in which the mirror of economic prosperity was shattered and its shards reflected nothing more than an unexpected, deep crisis. That, in any case, is not the question. The interesting thing about those five years in this story was not the crisis, but the string of unfortunate events that Hereu had to face.

You may already know him. He is a lively and smiley politician and he has become more so over the years, so he sportingly accepts the following comparison. In short, he saw himself as Yul Brynner facing Charlton Heston, overcome by the ten biblical plagues. 'I experienced the great power cut of July 2007, the great drought of the same year, which lasted into 2008 when the first water tankers docked, the sinking of the Rodalies local rail network, the crisis of the arrival of the AVE high-speed train to Barcelona...'. The difference, except the subsequent regret that he would express at the Red Sea, is that the Egyptian

pharaoh surrendered, given that he did not have at his disposal his own BR that could suggest how to combat the environmental crisis of the Nile dyed red. Hereu, on paper, did have one at his disposal.

It was well known in BR that the city's electric grid was incomplete and had been exposed to misfortunes since Clos's time or even before. Before the Olympic Games, power cuts were frequent occurrences. It got to the point that those who suffered them just accepted them as inevitable. The improvements made in this area were perceptible over time. There were no longer power cuts lasting several minutes or, in the worst cases, several hours, but the problem continued to be latent. For a time, micro power cuts that had little to no effect on domestic life, but were a cause for concern in the industrial sector, were in the news. The fact is that BR had perfectly diagnosed that the metropolitan electric grid was a house of cards. It carried out an in-depth study on it and drafted a report on how to bring it up to date and immunise it to prevent a catastrophe. But BR was a modern Cassandra, who after breaking her promise to love Apollo was condemned to have her prophecies heard but never believed.

A Trojan Horse entered the city in that sweltering July of 2007, when Hereu was mayor, and the scandal was huge. A city like Barcelona, a paradigm of modern Mediterranean life and an exemplary city that enchanted the world because after the Olympic Games it had

→ 128, Barcelona Energy Improvement Plan.



Jordi Hereu at an event with Paco Candel (seated, on the right), 2006.

not rested on its laurels, was suddenly faltering and diesel generators had to be distributed throughout the streets of the city. You can consult the newspapers and magazines from that period to see what it meant for the city's residents. What perhaps went unnoticed was that Hereu, our Yul Brynner, did not wait one second to formulate a solution for the electricity companies. The Praetorian Guard that Acebillo had promised Maragall was, as usual, ready for action.

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**'BR has too often been a modern-day Cassandra, anticipating infrastructure needs without being heeded'**

Episodes of this type have occurred on other occasions. Acebillo recalls, for example, that 'Barcelona Regional collaborated effectively on the thorny question of the distance between the airport runways when its expansion was being analysed, and it made a full study on how the future airport could be a hub for new neo-tertiary activities, in addition to aeronautical activities'. It should be highlighted that Barcelona does not have and has never had a council department in charge of airports. It is a matter that goes beyond its territorial scope and, even, its capacities. The city's civil service was not designed for this purpose. BR, depending on how you look at it, acted as a council department in the shadows.

It is now worth taking a breather on the path to gather our strength for further reading. I promise now that later this trip through the history of BR will go as far as the Sargasso Sea, the place where ghost ships wander, and also to Trieste, where a young Sigmund Freud spent the most chaste time of his life, literally. They will be two trips related to another BR story with a happy ending. But first, we must happily pay the toll to listen to a more provocative Acebillo, one who would never talk with a political corset.

He starts like this. 'The incessant indefinición regarding the interaction between Barcelona, the metropolitan-regional area and Catalonia is disconcerting'. He continues. 'I did not understand, nor do I understand now, that it was possible in the 19th century for there to be enough political will for Sants, Les Corts, Gràcia and Sant Martí de Provençals to form part of the Barcelona we know today, yet today in the height of the globalisation process and with so many interactive technologies and resources at our disposal, we are not capable of redesigning a map of Barcelona more in tune with its socio-territorial situation in a global context, an option that does not necessarily mean absorbing neighbouring towns'. Acebillo recalls what many have forgotten, that there was a day when the then Mayor of Santa Coloma de Gramenet, Manuela de Madre, proposed that her city should, without losing its identity, serve as a species of eleventh district of Barcelona. That proposal did not go very far. It did

not even get off the ground. On the contrary, laments Acebillo, L'Hospitalet's complaint reappears from time to time, like the Guadiana river, regarding its loss of access to the sea in favour of Barcelona, for which it received a symbolic compensation, a trinket, when Alfonso XIII bestowed the title of city on it in the 1920s.

I do not mention this to make bad blood, that is, to provide evidence that the metropolitan districting has been unsuitable for decades, with cities literally living back to back, but to make it patently clear that BR has been an excellent project workshop, in addition to a seedbed of strategies to territorially restitch the metropolitan area, water the seed planted by the Olympic Ring roads and, in short, make progress.

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**'BR has been an excellent project workshop, in addition to a seedbed of strategies to restitch the metropolitan area, water the seed planted by the Olympic Rondes and, in short, make progress'**

'We prioritised studies and interventions at the weakest points of the municipal borders', recalls Acebillo. The mouth of the Besòs and the border between Barcelona and L'Hospitalet along Gran Via were for too long a southern version of Alsace-Lorraine, not because they changed hands after each

→ 193. Fòrum. → 150. River Besòs Environmental Recovery Project. → 138. Picasso Plan.

war, but because of the phrase coined by the French the second time they lost these territories to the Germans: 'Always think about it; never talk about it'. That this was urban development gone mad had been evident since the 1960s, above all in the case of the Besòs, but the fact that a solution had not been considered and had not been talked was incomprehensible.

BR, among others, contributed to the conception of a strategy. The new Plaça d'Ildefons Cerdà ↗, the expansion of Fira de Barcelona at Pedrosa, the removal of the high-voltage lines from the bed of the Besòs river ↗, the awakening from an urban development coma of the area of the Fòrum...↗ 'What was important was the construction of bridges in such a way that where the border was most strongly felt we could blur it by incorporating new functional programmes that were conclusive enough to establish municipal interaction'. These are Acebillo's words.

There is (this is often explained by urban developers and the facts back it up) something equivalent to chromosomes in cities, hidden genetic information that dictates how they will grow, whether they will be tall or short, fair or dark, or have a tendency to cholesterol. What these specialists say is that cities, unless their geography impedes it, grow to the west. It must be because they seek the sun or due to the rotation of the Earth, or due to an inter-

national conspiracy that is kept top secret. It doesn't matter why. It happens. It takes place. In Barcelona, it has done so for centuries. The east was good for cemeteries. The west, to construct the city's new buildings. It was at BR where, in addition to acting on border scars, the decision was made to balance the urban development load, as if Barcelona were a ship. 'It seemed to us that it was a priority to distribute development between the west and the east, something that had already been initially formulated in 1992 with the operation of Plaça de les Glòries Catalanes, because it was a type of urban hinge. It was a question of redirecting the trend of many western cities to direct their growth predominantly to the west and relaunch the depressed areas of the east'. In this way, Acebillo condenses into a few words what in essence was Joan Clos's period as the architect of contemporary Barcelona. At the same time as redefining the major infrastructure projects of the Llobregat delta ↗, i.e. reconfiguring the west (with the obvious participation of BR), a future for the east based on the Fòrum ↗, La Sagrera station ↗, Glòries and the conversion of the old industrial Poblenou area into the current 22@ ↗, was conceived.

In the mid-1990s, to edify the younger readers of this book, it would have been an interesting and revelatory experience to go out into the street to ask a particular question. Where was number 1 on Avinguda Diagonal, the city's great avenue, one of Barcelona's most spacious gateways, a very busy commercial route,

→ 114. 22@ → 104. La Sagrera. → 193. Fòrum. → 178. Delta Plan.

especially between Plaça de Francesc Macià and Plaça del Cinc d'Oros? Few people would have answered correctly. Avinguda Diagonal starts, with a margin of error of just under 100 metres, at the Archimedes spirals of the Besòs wastewater treatment plant, at that time in the open air, where the first phase of wastewater drainage was carried out. They say that one day a cow got stranded there. That was number 1 on Avinguda Diagonal at that time. This is just one anecdote to illustrate the titanic effort undertaken by BR in the east of Barcelona. Titanic, but not yet complete, warns Clos. Incomplete and, even worse, poorly focussed, because Cassandra's curse continues to weigh on this public endeavour. Those who know Clos know what he means. La Sagrera. Let's listen to him once again.

The former mayor proposes a thought experiment about New York. 42nd Street is home to Grand Central Station, which is not only a vital railway terminal, but also a visual delight, partly thanks to Rafael Guastavino, perhaps the most admired Valencian in New York. When he died, the American press gave him the farewell he deserved. 'The Architect of New York Dies'. That was one of the headlines. Clos states the obvious, that Grand Central Station is a landmark. It is just a communications hub, but it is also an international icon comparable to the Empire State Building.

Now, proposes Close, we should look a few avenues to the east. It is the other side of the coin, Penn Station, 'a poorly

resolved case', which is not the same as unsolvable, but simply poorly resolved. 'La Sagrera was to be our Grand Central Station and now it is just our Penn Station', states Clos. 'Cities', he warns, 'must be built with the same level of ambition they had when they built the Eixample district', which never ceases to be captivating if you look at it closely. At La Sagrera, BR planned 12 tracks and a giant suburban transport hub, the one that Barcelona would have if, for example, you could get to Granollers by metro, in a proper metro, which is not just empty words, explains Clos, but what is currently happening in the rest of the world. 'More metro railways are being built than ever, not here, obviously, but in other cities, and either we are a great metropolis of six or seven million inhabitants or we aren't. You only have to look at how Germany is being transformed to understand it'. The warning is here in black and white.

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**'La Sagrera should be Barcelona's Grand Central Station and it runs the risk of becoming its Penn Station'**

The maps of that high-speed rail station with a plethora of tracks are tucked away in BR's drawers. It is one of many imagined and non-executed Barcelonas. That project, incidentally, was to be crowned in its most ambitious version with a Frank Gehry skyscraper

→ 104, La Sagrera.



Joan Clos, Frank Gehry and Josep A. Acebillo, 2006.

that already had a name, *The Bride*. A little bit of imagination was necessary to intuit the feminine silhouette of a 10.0 version of the Colossus of Rhodes, but it is undeniable that there was not a lack of ambition, the same level of ambition that was used to build the Eixample.

More than one admirer of the Eixample, and there are many, would raise their hand to point out that Cerdà's project was imperfect, not just because it grossly left undefined the urban border of Plaça de Catalunya, but also because where he considered to be the true center of the city (in the east, incidentally), Plaça de les Glòries Catalanes, he did

what the mathematician Pierre de Fermat did in 1621, he left written proof of the solution to a devilish equation, but he did not explain what it was. The comparison is not gratuitous. Glòries is Barcelona's Fermat's theorem. BR could, when the mood is right, organise an exhibition on the projects it has accumulated in its archives dedicated to this location. One of them would be the brilliant design conceived by Zaha Hadid for Glòries.

'It continues to be city's unfinished urban development business. I doubt that it will ever be a good square. I also doubt that it could be a proper urban park because I think that its

contextual circumstances, since the Macià Plan, required the conception of another category of urban space, more complex than a square or park'. These are Acebillo's words, as you will have guessed. 'The Glòries area continues to be a box room that accumulates a variety of activities. Railways, motorways, the flea market... all of these systems are eager to find an amorphous area where they can establish themselves'. In other words, they are Xs and Ys to solve this enigmatic equation. To end this paragraph in the right way it is necessary to add a historic note. The theorem that Pierre de Fermat noted down in the margin of a book in his private library, on a page of a copy of *Arithmetica* by Diophantus of Alexandria, was not to be solved until 1995, some 374 years later. Glòries, in this light, shows promise.

It is not the intention of this text to highlight obstacles nor would it be honest to appear to do so. BR's story is a history of successes as notable as they are innumerable. We have to choose. Two, for example. This writer has a weakness for them.

The first is invisible for most of the year, which is something of an achievement if you take into account its colossal dimensions. Clos swears that the following, to give credit where it is due, was a suggestion made by professor Josep Maria Begara. Barcelona was a city that flooded. That's what Mediterranean rain does. Barcelona was not innovative in its search for a remedy. Paris was

the inspiration, explains Clos. But in the City of Light it never stops raining. What happens here deserves another name and, consequently, a tailor-made solution. The city's network of underground reservoirs (which are humbly called *rain tanks*) is a work of engineering that deserves a suitable adjective, *smart*, for example. It is true that Hereu, the mayor of the ten plagues, did not receive any help resolving any of the crises he had to face. Let us remember that then the problem was that it did not rain but, in the 20 years since then, the torrential storm episodes in which the tanks have prevented flooding number in the dozens. These reservoirs are one of these two select examples, because, in their way, they symbolise very well the role that BR has played in the shadows. The tanks literally meant burying money. The political return on investment is, now that the collective memory has forgotten their existence, between hardly anything and nothing at all. Once a year, it is true, unless it rains, they can be visited during the Open House architectural festival, that great invention of the English-speaking world. This is when they are admired. You cannot help but describe them as underworld cathedrals. That is what they look like. It is a compliment. The strange thing is that in a city so often used as a film set no screenwriter or director has noticed they exist—they would be a fantastic setting for a remake of *The Third Man*.

And a little bit more before saying farewell. Clos warns that climate change is already here and that the return periods of the tanks will have to be calculated again. Homework for BR.

The second example is the one that will allow me to keep the promise I made a few paragraphs back. We are off to the Sargasso Sea. It is a disconcerting place. First of all, it is a sea without any coasts. It is an area of uncertain dimensions in the North Atlantic and a geographic character featured in a number of novels. It is the place where large sailing ships, for whatever reason, sometimes slowed down by algae, end up becoming ghost ships. In one of his stories, the Uruguayan writer Horacio Quiroga poetically rebaptised them "suicidal ships". But the interesting thing about this place, from the perspective of BR, is what happens at the bottom of the Sargasso Sea, another literary setting. Captain Nemo plunged its depths on his voyages.

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**'The siren songs of the resurrection of the Besòs reached the Sargasso Sea, thousands of kilometres away, where the eels are born'**

It is the marital bed of half the world's eels. This fish has ancient customs. Since the Cretaceous period it has swum thousands of kilometres to copulate, spawn and die. This takes place in the Sargasso Sea, closer to the coast of

the United States than to that of Europe. Subsequently, its young, carried along by the ocean currents, make a journey of thousands of kilometres to the rivers where their progenitors lived. The fact that this happens there, beyond human sight, disconcerted the Romans and Greeks. These two ancient peoples were convinced that this beast was mysteriously born underground. Their mistake was nothing in comparison to what the eels did to Sigmund Freud, who spent months of his scientific training dissecting hundreds of specimens to find their reproductive system, which does not appear until they reach maturity. In his laboratory in Trieste, Freud spent the most chaste years of his life. He ended up hating eels with the same disdain that Charles Darwin felt for barnacles. That, in any case, is a story for another day. Eels, yes, because since the Besòs has been a river, some tens of thousands of years, it has been their home, an Eden even in the short geological period in which there has been human presence, which is difficult enough in itself.

The last harvest of strawberries cultivated in the fields at Santa Coloma de Gramenet on the banks of the Besòs took place in 1981. Coloma Bayà picked them one by one from the plants. They dedicated a page to her in the local press. And deservedly so. It was a truly sad environmental obituary. The Besòs was dying. Industry had massacred that basin. It could even be said that the crime was perpetrated under the complicit gaze of part of society, as if the river had earned it

due to the deathly flood of September 1962 that occurred upstream.

It may be a statement without any scientific basis, one of those that are formulated because it is the first example, but for a time it was considered to be the most contaminated river in Europe.

It was a cadaver. No other description was appropriate. In 1991, a year before the Olympic Games, when everything in Barcelona was supposed to be nearly ready to amaze the world, photographs of clouds of toxic foam in the Besòs basin were still making periodic appearances in the press. Discharges were considered to be a minor evil, the price you had to pay for progress. Or, at least, this is how a judge saw it when in 1995 he ruled in favour of an industry that had used the river as a natural sewer for its waste. When viewed with a little perspective, it was logical that soon there would be a political debate on the need to recondition the Besòs, to dress it up as best as possible. BR, despite everything, was not created to be merely a tailor. It promised to return life to the river. And few people believed it.

The recovery of the Besòs is one of the great pyramids that BR has built in its 25 years of existence. It is an unfair metaphor, because pyramids are mausoleums and what happened with the Besòs was literally a resurrection.

Only a few lines are necessary to summarise what was necessary to bring about this miracle. The high-voltage lines that like gigantic iron mileposts

were erected next to the riverbank were removed. The wiring was buried in underground galleries, which are incidentally another healthy obsession of BR, not just there but also in the rest of the city. The jigsaw puzzle of the wastewater plant, an installation forced to treat half a million cubic metres of water a day, was solved and it was done without resorting to the easy solution of transferring it to another place, or in the current parlance, outsourcing the problem. The final section of the river, where it gently flows out into the sea, down coast from the municipal border of Sant Adrià, was naturalised. A variety of other engineering projects, beyond the river, like the network of underwater reefs 20 metres deep off the beaches of Barcelona, should be added to the list. Approximately every five years, there is a press conference to see how things are going, although it would be more appropriate to say 'how things are swimming'. Those lucky enough to come back again say very well.

The best summary, however, is a different story. The eels from the Sargasso Sea have returned to the Besòs. They could not have been reintroduced artificially because even though they are inoffensive, they are indomitable. For the moment, more is unknown than is definitely known about them. They have returned because they wanted to. We know that they spend their infancy and adolescence in the Besòs because it is a suitable environment. There are still no strawberries being grown, but

→ 196, Parc d'Escullis [Reef Park].

→ 150, River Besòs Environmental Recovery Project.

who knows? Maybe one day... Impossible things have already happened.

To conclude the Besòs case, only an epilogue is required. It is an unscheduled event that took place during the celebration of Barcelona's 2018 annual *La Mercè* festival. The river park was included as a new performing space for family audiences. Nothing special. It was only a test conducted by the Barcelona Institute of Culture. The public responded. The weather was good too. Perhaps even too good. It was really hot! First some children paddled in the water. Then a parent joined them. Half an hour later, a couple of dozen people were bathing in the river. A reckless action? Certainly. The quality of the water is suitable for mosquito fish, eels and, so some eyewitnesses purport, otters, but it is not yet advisable for humans. However, let's stay with its symbolic aspect; it was a homage to many years of work.

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**'During the celebration of Barcelona's 2018 annual La Mercè festival the river park was included as a new theatre space for family audiences'**

Time to change the subject. At this point, some people will be thinking that the 'damned word' has not been mentioned one single time. It is true that it exists. Let's read it out loud and see what happens. Tram. (...) Nothing? Everything still in its place? Nobody slapped you?

↑ 236, Tram.

The English-language publishing industry has a more politically correct expression than ours to refer to those who draft projects and stay in the shadows. Here the person who writes a novel signed by another more renowned but less prosaic author is called *un negro*. But the English term is ghostwriter. It is more elegant.

As I was saying, one of BR's major works as a ghostwriter is the *Tram*. Everyone has heard about it. But not everyone has read it. Maybe they are waiting for the movie version. Acebillo shows us a trailer, one of these modern trailers that show you the entire story.

'Ferrocarrils de la Generalitat had always shown great interest in the station at Plaça d'Espanya not being a terminal and in having the lines that end there going as far as the city centre. Even though the occupation of the subsoil makes it very difficult to prolong the lines to Plaça de la Universitat and Plaça de Catalunya, it is feasible to reach Plaça de Francesc Macià, a thesis picked up and initially approved by the Metropolitan Transport Authority'. The option that emerged to join the two tram networks was submerged. 'We discussed the continuation of the Ferrocarrils lines under Diagonal to Glòries a lot. There, the new line would be integrated into the planned hub, transferring passengers to the RENFE, metro and Trambesòs lines'. 'This proposal is even more coherent if you take into account that when the new Sagrera intermodal station is finally a reality, its operation will allow

↑ 104, La Sagrera.



the railway services that now run along La Meridiana to go through the new La Sagrera station. This management model would mean that the Meridiana tunnels would be unused, leaving them free to be used by the new Ferrocarrils line'. I'm surprised Acebillo did not finish that sentence with a whoop of excitement. What this railway design proposes is a definitive connection between the west and the east and, now we are about it, between El Baix Llobregat and El Vallès.

*Tram*, the novel—we are all familiar with how it ended. It was another of the calamities that Hereu suffered. Time, the great healer, allows him to contextualise what happened. 'At the worst point of Zapatero's political life, we went and asked the people about the tram'. And do you know what? He does not fully regret it. Experience has taught him there is a triangle that must be scrupulously equilateral. Each one of the sides, politics, society and technical intelligence, must have the same length. Hereu does not recommend an isosceles triangle. The connection between the two tram networks, he adds, will happen one day. If only because it is environmentally sound to do so.

Do you remember what we said a few pages back about crossroads? Barcelona faced one in May 2011. And so did Barcelona Regional. The city decided that Xavier Trias was to be the new mayor. He was more persistent than some of his predecessors. He had been the leader of the opposition since 2003.

And that is not the most pleasant place to be. The opposition seats are literally and metaphorically uncomfortable. It did not matter how many times Cato the Elder made his pronouncements in the senate ('*ceterum censeo Carthaginem esse delendam...*'), the troops would never march on Carthage. But eight years as an aspirant allowed Trias to examine BR. It's what doctors do, isn't it? 'Barcelona Regional is like the Public Health Agency. It is not an instrument created to be famous. It is, or should be, an oasis located far away from politics because it is a very powerful tool, with a spectacular [he uses the word "spectacular" three times] team of professionals who are capable of planning the future'. Again, it is what doctors do, they diagnose.

The previous sections of this BR biography mention how crucial it was for Maragall to have studied in the United States. Joan Clos also studied in the United States and in Edinburgh and, in fact, he has never stopped being a political Phileas Fogg, given that after serving as mayor he spent time in Madrid, Istanbul and Nairobi. Hereu too, after being in charge of the city, has accumulated frequent flyer points and when he returns home he always thinks the same thing: 'We're not doing bad'. Trias also worked abroad in two frankly antithetical cities: Bern and Genoa, which show that sometimes infrastructure decisions are made one day and then regretted for decades. Trias considers the case of the Ligurian capital's impressive *strada*



In the first row from left to right: Vicente Guallart, Xavier Trias, Willy Müller and Antoni Vives, 2015.

*sopraelevata* to be medical literature that must be consulted before becoming mayor, which in the final analysis is not very different to being a general practitioner or a surgeon.

During the time that Trias was in charge of the city, BR resumed some work lines and explored new ones, and suffered the city's ingratitude because, as he explains, 'incoming mayors inaugurate their predecessor's projects and leave their own ready for their successor to do the same'. Time in politics is not the same as in architecture and engineering. It must simply be accepted as fact.

In the four years between June 2011 and June 2015, BR focused on what

↑ 251, Perpignan.

Trias calls the company's internationalisation process. Although before that time it had not been what you might call a company without a passport. Cities like Perpignan ↗, as early as 1994, when facing the arrival of the AVE high-speed train, asked BR for a second opinion. The idea that Trias put forward was to utilise the intellectual prestige of the company's human team not just here, at home, but also beyond, but the main area of action would remain historic and metropolitan Barcelona.

It is curious, but although everything started in 1992, with the inauguration of the Ring roads, the BR of Trias's day once again picked up the baton of infrastructure and urban devel-



opment required by the Ring roads. It was necessary, explains the paediatrician mayor, to rethink Barcelona's relationship with Collserola ↗ (a touchy subject with residents), to resume the debate on the port's railway connections ↗, not to be satisfied with the resurrection of the Besòs and provide a solution for the coast adjacent to the mouth of the river ↗, the location of the iconic and imposing chimneys of the old power plant, the secular Sagrada Família of Sant Adrià de Besòs... As is evident at this point of the story, BR is our Sisyphus, who every time he takes a different stone up to the top of the mountain finds that there is another one to take up. However, some stones, like in the Homeric legend, roll back down again. And if one perfectly represents this problem it is the rock of housing.

Let's go back to the time machine. We have already used it once. Fasten your seatbelts, it will be over in the blink of an eye because there are just two stops. The first one is June 2009. It is a confession that Hereu can make now that he is free of the responsibilities of office. He recalls that sometimes, before facing a major project, he thought the same thing, that 'Barcelona had outgrown its clothes' in one area or another, and that it was necessary to be ambitious. This is actually the instruction manual for this city. Barcelona has not been built like

↗ 154, District of the Besòs Tres Xemeneies. ↗ 180, Road and Rail Accesses to the Port of Barcelona. ↗ 164, Collserola.

an Ikea wardrobe, but with the cabinet-making skill of Chippendale. Later there is always a moment of vertigo. Hereu recalls that he felt regret when he accompanied José Luis Zapatero to the inauguration of terminal T-1 at El Prat, and more so when he later went as a passenger. This happened in the summer of 2009. 'There you are with your suitcases in the middle of an immense empty space and you think: haven't we made it a little too big?' The answer to that question, as we now know, is no. And infrastructure decisions require conviction, courage, *balls*, however you want to express it, and when it comes to choosing a motto, companies like BR should use the one adopted by Nik Wallenda, one of the world's most famous tightrope walkers, who rather than performing at the circus chose to cross Niagara Falls: 'Look forward, never at your feet'.

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**'BR has been managed for 25 years with heart and balls, if you'll excuse my language. It has taken its motto from the great tightrope walker Nik Wallenda: "Look forward, never at your feet"'**

Now the second, brief, stop. This time, September 2006. It was a busy month. Joan Clos stood down as mayor of Barcelona to become the Spanish Minister of Industry. Events like this cause unforeseen information eclipses. One happened then. Clos accepted the ministerial appointment



Ada Colau, 2017.

on September 8<sup>th</sup>. Two days later, at the Venice Biennale of Architecture, Acebillo presented a plan with a shocking name: Barcelona 100,000. The figure referred to the number of houses, under construction or planned by BR, to which the city could and should aspire. This included all of Barcelona's best known and most obvious residential areas, like La Sagrera, Fòrum, Sant Andreu... and also the taboo idea—not new, just taboo—of reconquering the urban port and, now that we are about it, converting part of the current free trade zone (according to Acebillo, an anachronism in modern Europe) into a new mixed-use residential district. That

↗ 208, El Morrot Waterfront.

proposal had enough elements to trigger one of the controversies that we love so much here, between the Capulets and the Montagues of urban development, but, as I said, Clos's farewell eclipsed it. In essence, this plan has always been latent. In the 1960s, the multitalented Josep Maria Bosch Aymerich, the man who wanted, but was not able, to erect a skyscraper in Plaça de Catalunya, also wanted, but again was not able, to convert El Morrot ↗ into a residential district. The sketches held by the College of Architects of Catalonia show a type of Barcelona version of Monte Carlo on the eastern slope of Montjuïc. Trias, when he was about to win the mayoral race, did so with a project that was similar to that

of Bosch Aymeric, called Blau@Ictínea, in which the city would no longer grow up the slope, but rest on the waters of the port. Trias wanted to build 10,000 homes in El Morrot. The plan fell into a state of lethargy. In its way, it is now part of BR's catalogue of possible Barcelonas.

Even though that Barcelona-sur-Mer did not see the light of day, the idea collectively reminded us that housing continues to be what engineers call (I hope that the people at BR will excuse me if I have used the expression incorrectly here) the *tensile strength* of a material, or rather in this case of the city's community living.

During the chat organised to blow out 25 candles on BR's birthday cake, Trias used an outdated expression. Regrettably outdated. Some time ago it was used a lot. It is *social elevator*. He said it in reference to another project commissioned to BR by the mayor's office to ensure that the city would not be technologically left behind and that ICT should be within everyone's reach. In essence, however, the reflection above on the prioritisation of the housing needs of the city was also related to the *social elevator* concept.

Barcelona is, it should be said, a mathematical paradox. The population remains stable at just under 1.6 million inhabitants. The number of available houses is around 700,000. The theoretical average occupation is slightly less than 2.3 people per flat. Why housing is an endemic disease in Barcelona is, as Churchill said about the Soviet Union,

a riddle wrapped in a mystery inside an enigma. Accordingly, it is a perfect job for Barcelona Regional.

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**'Why housing is an endemic disease in Barcelona is, as Churchill said about the Soviet Union, a riddle wrapped in a mystery inside an enigma. Accordingly, it is a perfect job for Barcelona Regional'**

May 2015. Ada Colau wins the municipal elections to become mayor of Barcelona. In other countries, war heroes have a lot of electoral appeal. In fact, they do not even need to be heroic. John McCain aspired to the presidency of the United States although or because he had spent five years as a prisoner of war in North Vietnam. Fortune smiles on Vladimir Putin because he was a KGB agent in East Germany. Here, on this side of the Mediterranean, for reasons we won't go into, it is not a plus, people do not look at war stories. But Colau became mayor not only from the property battlefield, but directly from behind enemy lines. It is a biographic detail that may be of interest to contextualise this final stage of BR.

The public company that was created in 1993 after the Olympic Games that, like people always say, put Barcelona on the map of cities to be visited at least once in your life, was commissioned to attenuate the impact of this success. 'One of the first emergencies we faced as the new government team

↑ 136, PEUAT.

was to curtail the effects of the situation created by the lack of control over tourist accommodation', explains Colau. If you look very closely at the credits of the PEUAT, ↗ you can see BR. It was the first commission. The next one, a logical consequence of the previous one, was to solve the aforementioned mathematical paradox of the city. Pay close attention.

'To apply a policy, regarding housing or any other type, it is essential to have data that allow you to make diagnoses and, at the same time, monitor and assess the measures and the decisions that are adopted'. Put like this it seems simple. It seems like nothing more than a medical examination. Do you remember Doctor Gregory House? The diseases of some of his patients advanced more quickly than his diagnoses. This, in addition to the incessant search for an actual case of lupus (which does not appear until the fourth season!), was the hook of the series. Well the property market has advanced even more quickly in the last few years. When the official reports are published with the comparative prices per square metre, they are already out of date. 'This is why it was essential to have an observatory.

This is why an instrument like BR is so useful. In this case, in addition to the agility and capacity required to create the Observatory ↗, we also wanted it to have a transversal perspective, the capacity to go beyond data gathering and analysis'. This is how Mayor Colau sees it.

When the O-HB (Barcelona Housing Observatory) took off, something

occurred that had happened already before during BR's quarter century of life. BR stopped providing the O-HB with technical services, but the O-HB was created after the transfer of part of the human team to the new company. The same thing happened when Barcelona Sagrera Alta Velocitat was established.

This story is coming to its end. Given that it started with a trip to Suetonius's work, perhaps it should conclude with the last words of Augustus. Not in vain was the city founded under his reign. '*Acta est fabula, plaudite*', he said in the presence of his wife Livia. The show has ended, applaud. That was on his deathbed. It could also conclude with the essence of what was his last public speech, aware that he was close to his end. He said that he had found Rome a city of bricks and left it a city of marble. It is a good quotation. It suits the history of BR, the great unknown. But, I'm sorry, this atypical review of the history of Barcelona Regional will not conclude without a P.S.

It is an anecdote. The protagonist is the intellectual, journalist and writer Arthur Koestler. He did not seek fame, apparently like BR. On one occasion, an admirer of his work came up to him and Koestler felt, like he always did, uncomfortable. 'To want to meet an author because you like his books is as ridiculous as wanting to meet the goose because you like pâté de foie gras'. Well, for me personally it has been a pleasure to meet the goose.

*Acta est fabula.*

↑ 232, O-HB.

# AGENCY

## 1993

**Pasqual Maragall i Mira**, President. Proposed by Barcelona City Council. 24/12/93—26/06/97

**Joan Blanch i Rodríguez**, Board Member / First Vice-President. Representing REGESA / Proposed by the EMSSA. 24/12/93—17/06/99 (from 25/03/1996, as First Vice-President)

**Joan Torres i Carol**, Board-Member / Second Vice-President. Proposed by the EMSSA and the Municipal Board of Housing 24/12/93—25/03/96 (from 13/12/1994, as Second Vice-President)

**Xavier Valls i Serra**, Board Member. Proposed by the Municipal Board of Housing. 24/12/93—25/03/96

**Josep Anton Acebillo Marín**, CEO. By agreement of the shareholders. 24/12/93—12/09/11

**Ramón García-Bragado Acín**, Deputy Director. 24/12/93—31/12/97

## 1994

**Manel Hernández i Carrera**, Board Member. Proposed by the EMSSA. 13/12/94—13/11/99

**Carles Ponsa i Ballart**, Board Member. Representing the CZF. 13/12/94—04/03/97

## 1995

**Pere Caralps i Riera**, Board Member. Representing Barcelona Port Authority. 23/05/95—26/11/97

## 1996

**Joan Clos i Matheu**, Board Member / President. Proposed by Barcelona City Council. 25/03/96—14/12/06 (first as Board Member, from 26/06/1997 as President)

**Carme Sant Miguel i Ruibal**, Board Member. Proposed by Ferrocarril Metropolità de Barcelona, S.A. 25/03/96—30/06/03

**Alfonso de Alfonso Bozzo**, Board Member. Representing AENA 30/04/96—26/06/97

**Plácido Sánchez i Ceballos**, Board Member. Representing RENFE 30/04/96—04/03/97

**Lluís Tejedor i Ballesteros**, Board Member. Proposed by the MMAMB and the AMB. 30/04/96—

**Didac Pestaña i Rodríguez**, Board Member. Proposed by the MMAMB. 30/04/96—06/07/04

## 1997

**José María Alonso Abellán-García**, Board Member. Representing RENFE 04/03/97—19/12/02

**Miquel Botella Pauissa**, Board Member. Representing the CZF. 04/03/97—04/03/02

**Antonio Pedrós Vilaprinó**, Board Member. Representing AENA. 26/06/97—30/06/06

**Jordi Maymó i Asses**, Board Member. Representing Mercabarna. 26/06/97—27/06/07

## 1998

**Miquel Sodupe Roure**, Managing Director. 01/01/98—31/12/05

**Albert Muixi i Rosset**, Board Member. Representing Barcelona Port Authority. 30/06/98—06/07/04

**Xavier Casas i Masjoan**, First Vice-President. Proposed by Barcelona City Council. 30/06/98—19/12/07

## 2000

**Josep Ignacio Cuervo Argudin**, Board Member. Proposed by the EMSSA. 28/06/00—19/12/07

**Maria Teresa Arquè Ferrer**, Board Member. Representing Transports de Barcelona, S.A. 28/06/00—30/06/08

**Guillermo Gutiérrez García**, Board Member. Representing the CZF. 20/12/00—16/03/05

## 2001

**Antonio Santiburcio Moreno**, Board Member. Representing REGESA. 27/06/01—06/07/04

## 2003

**Francisco Lozano Roca**, Board Member. Representing RENFE. 20/03/03—31/03/06

**Alfred Morales González**, Board Member. Proposed by Barcelona City Council. 30/06/03—19/12/07

## 2004

**Jaume Vendrell i Amat**, Board Member. Proposed by the MMAMB, the AMB and since 20/06/14 representing REGESA. 06/07/04—...

**Rafael Escutia i Celda**, Board Member. Representing Barcelona Port Authority. 06/07/04—19/12/07

**Joan Carles Mas Bassa**, Board Member. Representing REGESA. 06/07/04—19/12/07

## 2006

**Juan Carlos Montiel Díez**, Managing Director 01/01/06—12/09/11, Deputy General Director 12/09/11—...

**Assumpta Escarp i Gibert**, Board Member. Proposed by Barcelona City Council and the AMB. 30/06/06—27/10/15

**Esteve Borrell Marco**, Board Member. Representing the CZF. 30/06/06—12/06/12

**Jordi Prat Soler**, Board Member. Representing ADIF. 30/06/06—19/03/13

**Jordi Hereu i Boher**, President. Proposed by Barcelona City Council. 14/12/06—12/09/11

**Fernando Echegaray del Pozo**, Board Member. Representing AENA. 14/12/06—12/06/12

## 2007

**Ramón García-Bragado Acín**, Vice-President. Proposed by Barcelona City Council. 19/12/07—12/09/11

**Elsa Blasco i Riera**, Board Member. Proposed by Barcelona City Council. 19/12/07—12/09/11

**Francesc Narváez i Pazos**, Board Member. Proposed by the EMSSA. 19/12/07—12/09/11

**Manuel Jesús Pujana Fernández**, Board Member. Representing REGESA. 19/12/07—20/06/14

## 2008

**José Alberto Carbonell Camallonga**, Board Member. Representing Barcelona Port Authority. 30/06/08—...

**Ricard Frigola i Pérez**, Board Member. Representing Mercabarna. 30/06/08—25/06/09

**Jesús María Canga Castaño**, Board Member. Proposed by the MMAMB and the AMB. 30/06/08—04/06/13

**Ramon Torra i Xicoy**, Board Member. Proposed by the MMAMB and the AMB. 17/12/08—27/10/15

## 2009

**Montserrat Gil de Bernabé**, Board Member. Representing Mercabarna. 25/06/09—21/02/12

## 2011

**Antoni Vives i Tomàs**, President. Proposed by Barcelona City Council. 12/09/11—10/07/15

**Vicent Guallart i Furió**, Vice-President. Proposed by Barcelona City Council. 12/09/11—10/07/15

**Willy Müller Zappettini**, General Director. 12/09/11—10/07/2015

**Joaquim Forn i Chiariello**, Board Member. Proposed by Barcelona City Council. 12/09/11—19/03/13

**Gerard Ardanuy i Mata**, Board Member. Proposed by Barcelona City Council. 12/09/11—10/07/15

**Joaquim Molins i Amat**, Institutional CEO. By agreement of the shareholders. 13/12/11—10/07/15

## 2012

**Josep Tejedo Fernández**, Board Member. Representing Mercabarna. 21/02/12—...

**Antoni Detrell i Elias**, Board Member. Representing the CZF. 12/06/12—...

**Sonia Corrochano Gómez**, Board Member. Representing AENA. 12/06/12—...

## 2013

**Albert Rost i Calvo**, Board Member. Representing ADIF. 19/03/13—22/03/18

**Ricard Font i Hereu**, Board Member. Representing the Government of Catalonia. 19/03/13—27/10/15

## 2015

**Ada Colau Ballano**, President. Proposed by Barcelona City Council. 10/07/15—...

**Janet Sanz Cid**, Vice-President. Proposed by Barcelona City Council. 10/07/15—...

**Jose Maria Montaner Martorell**, Board Member. Proposed by Barcelona City Council. 10/07/15—...

**Jordi Campillo Gámez**, Board Member. Proposed by Barcelona City Council. 10/07/15—...

**Antoni Balmon Arévalo**, Board Member. Proposed by the AMB. 27/10/15—...

**Daniel Mòdol Deltell**, Board Member. Proposed by the AMB. 27/10/15—...

**Gerard Segú i López**, Board Member. Proposed by the AMB. 27/10/15—...

**Francesc Sutrias i Grau**, Board Member. Proposed by the AMB. 27/10/15—06/06/16

## 2016

**Josep Bohigas Arnau**, General Director. 01/01/16—...

## 2017

**Jordi Montanyà i Rifà**, Board Member. Proposed by the AMB 27/06/17—12/12/17

**Josep Maria Boronat i Puja**, Board Member. Proposed by the AMB. 12/12/17—...

## 2018

**Armando Brigos Hermida**, Board Member. Representing ADIF. 22/03/18—...

## Board Secretary

**Mariàngels Badia i Gascó**, Secretary. 24/12/93—28/03/01

**Alejandro Rocabert i Marcet**, Secretary. 28/03/01—13/12/11

**Jaume Camps i Rovira**, Secretary. 13/12/11—10/07/15

**Enric Lambies Ortin**, Secretary. 10/07/15—...

# The Creation of Barcelona Regional

An Extraordinary Idea  
to Further an Extraordinary Legacy



**RAMON GARCÍA-BRAGADO ACÍN**

Barcelona Regional Deputy Director (1994—1998) and Vice-President (2007—2011)

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**‘BR is a unique success story in the area of territorial planning and an extremely useful instrument in the coordination of the territorial policies of the various administrations’**

## HISTORICAL BACKGROUND

It is impossible to look back at the Barcelona Olympic Games without considering the legacy they left behind them. This legacy is normally associated with tangible elements like the infrastructure that allowed the city to take a leap forward and make up for lost time (the Ring roads, the drainage network, the recovery of the beach system, etc.), and with the facilities and venues deployed throughout the metropolis, which have subsequently been put to good use by Barcelona’s sports clubs and associations.

However, 1992 also left behind another extraordinary legacy that is much less celebrated. It is an intangible legacy which is, in essence, related to a certain *modus operandi*, that is, how things are planned, designed, organised and executed.

The Olympic Games experience showed those of us who were lucky and privileged enough to take part in their organisation and, through us, the general public, that even the most complex transformation projects can be successfully undertaken if they are approached, planned and executed in a ‘certain way’. If they are, in short, undertaken in the same way as the Olympic project, and more specifically, the part concerning the transformation of the city. In fact, this extraordinary experience was somewhat limited to the executives, technicians and professionals who had spent five years developing the systems and methodologies upon which the project’s success was based.

These technicians and professionals had amassed a vast amount of know-how, also considered to be part of the Olympic legacy, and to squander the opportunity to tap it would have been a disgrace.

But let us for a moment go back to the month of September 1992, when the fireworks display of the closing ceremony of the Olympic Games was still burning our retinas, when we were still humming ‘Amigos Para Siempre (Friends for Life)’ and rejoicing in the fact that Samaranch had described the event as ‘the best Olympic Games in the modern era’. It was a time when the completion of the work carried out by the technical teams to prepare the city for the Games was still far off in the future. It was when a quieter, less dazzling and much less conspicuous phase was starting. It consisted of the completion of the works, managing their handover, settling their

accounts, drawing up the as-built plans and, in short, integrating all these newly constructed elements into the day-to-day running of the city. The process started, of course, with the conversion of the Olympic Village apartments where the athletes had stayed into homes for the thousands of citizens who had previously bought them, contributing to the funding of the event. It was a time of intense, discreet and very important work that consisted in to the city everything that had been produced in the previous five years for general public use.

It was in the second half of 1992 and all through 1993 when all these Olympic work completion, settlement, reception and delivery tasks were carried out. It was at that time, as the companies that formed part of the Olympic holding company (HOLSA) were naturally downsizing, when Josep Antoni Acebillo and others started to reflect on how all the experience accumulated in the management of the Olympic project could be put to good use. And then we started to imagine what after a few months was to become Barcelona Regional, the Metropolitan Agency for Urban Development and Infrastructure.

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**‘The objective of the new company was to serve as an instrument of the various administrations with territorial responsibility with a view to putting forward territorial planning proposals designed to integrate the various systems into the existing urban fabric on the metropolitan and regional levels’**

#### PRELIMINARY IDEAS

It was clear that if the aim was to take full advantage of the successful experiences garnered in the Olympic period, then undoubtedly public companies would be the most suitable bodies to carry out highly specialised technical work.

The second matter that was clear from the start was the purpose of the new company, what we would now term its ‘mission’. The fundamental aim was for it to serve as an instrument of the various administrations with territorial responsibility with a view to putting forward territorial planning proposals designed to integrate the various systems into the existing urban fabric on the metropolitan and regional levels.

This broad, and to a certain extent generic, objective led to the designation of its area of action as regional,

understanding regional to be not what we now know as Region 1 (Barcelona Metropolitan Region), but a functional area that was determined more by the effective influence of the various infrastructure elements than clearly defined borders.

With regard to its legal and administrative configuration, a number of questions were abundantly clear, while others were as clear as mud. The former included the fact that the new company should not be assigned administrative responsibilities that could in any way interfere with those of other bodies and institutions and that the focus of its actions should be determined by its partners. It was therefore configured as an ‘executive body’ 20 years before this concept was legally regulated. Of the latter, the main questions were the determination of the new company’s partners and what the share distribution would be.

#### THE SHAREHOLDERS

The first major decision to be adopted was the proposal that all institutions with legally assigned responsibilities in terms of major infrastructure in the metropolitan and regional areas should form part of the new company. It had, therefore, to be a company made up of a variety of institutions and administrations with different responsibilities acting within the same territory. The decision to not include, directly or indirectly, the Union of Municipalities of the Barcelona Metropolitan Area should be highlighted, given that as a voluntary grouping of municipalities, its only responsibilities are those delegated to it by those towns and cities. It was also necessary to avoid any institutional controversy with *Convergència i Unió* (CiU), the ruling party of the Catalan Government which was at that time extremely sensitive to metropolitan operations.

The second major decision, which was certainly more important than the first one, was that the various administrations should not directly form part of the company, that is, they would be represented through the public companies to which the management of their services and infrastructure were commissioned. Accordingly, we thought that the representation of the partners on the boards of the new company

should be more technical than political, and debate should tend more towards coordination and exchanging information than political positioning.

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**‘One of the major decisions was that the various administrations should not directly form part of the company, that is, they would be represented through the public companies to which the management of their services and infrastructure were commissioned’**

The result of this initial reflection was the decision to not open the company up to private capital, even that from regulated concessionaires. We considered that the consequences of a mixed capital company, even if it were mainly public, could engender significant limitations with regard to relations with public partners.

These reasons led to the initial shareholder structure of the company being as follows: Barcelona City Council, as the largest minority, present through the participation of the Societat Municipal d’Aparcaments i Serveis (Municipal Car Parks and Services Company—SMASSA), which was subsequently integrated into Barcelona de Serveis Municipals (Barcelona Municipal Services—BSM); the Metropolitan Environmental Entity (EMA), present through the participation of the Empresa Municipal de Sanejament (Municipal Sanitation Company—EMSSA); the Transport Entity, present through the participation of Transports Metropolitans de Barcelona (TMB); and El Barcelonès Regional Council, present through the participation of the Societat Urbanística Metropolitana de

Rehabilitació i Gestió (Metropolitan Restoration and Management Urban Development Company—REGESA). In addition to these local administrations, the following state-owned companies were also shareholders: the Consorci de la Zona Franca de Barcelona (Barcelona Free Trade Zone Consortium—CZFB), Red Nacional de los Ferrocarriles Españoles (Spanish National Railway Network—RENFE), which was subsequently replaced by Administrador de Infraestructuras Ferroviarias (Railway Infrastructure Manager—ADIF), the Port of Barcelona, and Aeropuertos Españoles y Navegación Aérea (Spanish Airports and Air Navigation—AENA). Even though several attempts were made, the participation of Ferrocarrils de la Generalitat de Catalunya (Government of Catalonia

Railways), or of any other company owned by Government of Catalonia, was never secured.

All this reflection on the objectives and partners of the new company was crystallised in December 1993, when the new company was established under the name of Barcelona Regional, Agència Metropolitana de Desenvolupament Urbanístic i d’Infraestructures, S.A. It cannot be said that this constitution was met with great enthusiasm by the Union of Municipalities of the Barcelona Metropolitan Area, which felt to a certain extent excluded from the process. But it can be said that the decision to foster the indirect presence of the institutions precluded any debate on the creation of the company within the political bodies of the various administrations.

THE DRIVING PROJECTS

The establishment of Barcelona Regional in that fateful month of December 1993 would not have been possible without the need for Barcelona City Council and rest of the city’s institutions and administrations to clearly establish their technical position regarding two major projects fostered by the Spanish government. The first was the introduction of high-speed rail into Barcelona ↗, and the definition of its station and the connection to France. At that time (1994) the President of Spain, Felipe González, and the President of France, François Mitterrand, had agreed that the international connection would be effective in 2000, making it necessary to resolve its passage through Barcelona.

The second major project was the set of actions planned within the area of the Llobregat Delta by the Spanish Ministry of Public Works, Transport and the Environment, under the leadership of Josep Borrell, which was known as the Delta Plan ↗.

With regard to the AVE high-speed train, the contributions of the newly created Barcelona Regional proved key to aborting the option put forward by certain sectors of the Government of Catalonia of locating the central station in El Vallès and leaving Barcelona La Sagrera ↗ station as a cul-de-sac. The route was also brought closer to the airport, even though it meant there would not be a high-speed

→ 234, High-Speed Rail and Metropolitan Railway System.

→ 178, Delta Plan.

→ 104, La Sagrera.



→ 178, Delta Plan.  
→ 104, La Sagrera.

railway station at the airport, a decision that we have never stopped regretting.

The work of Barcelona Regional can also be appreciated in the basic planning of La Sagrera ↗ and of its future major station, in addition to the resulting new urban structure in the Sant Andreu district. The high-speed rail joint venture Barcelona Sagrera Alta Velocitat (BSAV) is still using the plans made by Barcelona Regional in that period.

With regard to the Delta Plan ↗, Barcelona Regional was appointed secretary of its monitoring committee, which was made up of all the administrations and bodies involved, and was responsible for redrafting the proposals and projects on a single map, a decisive factor in the integration of the plan. Projects like the deviation of the Llobregat river, the new wastewater treatment plant, the extension of the road and rail systems to the new terminals of the port, the airport's third runway and the defensive water treatment of the Llobregat aquifer, were projects that benefited from the transversal vision that Barcelona Regional provided.

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**'The work of BR is also evident in the basic planning of La Sagrera and of its future major station, in addition to the resulting new urban structure in the Sant Andreu district'**

The first two major projects applied all the experience, rigour and professionalism garnered from the Olympic experience. There were subsequently numerous projects and initiatives in multiple areas (energy, telecommunications, urban economy, coastal revitalisation and environmental sustainability, among many others), which have secured Barcelona Regional's status as a unique success story in the area of territorial planning and an extremely useful instrument in the coordination of the territorial policies of the various administrations.

## SOME PEOPLE

As I have already said, the need to come up with ideas regarding the creation of a structure with such characteristics was fostered by the management of the Institut Municipal de Promoció Urbanística (Municipal Institute for Urban Development Promotion—IMPUSA), and it was the technicians and professionals of that company who

formed part of the initial staff. However, I think that when considering those first steps special mention should be made of Josep Antoni Acebillo; the lawyer Mariàngels Badia; Teresa Garcia Alba, the manager of REGESA at the time and the key to the economic stability of Barcelona Regional; Miquel Sodupe, an architect with vast experience in metropolitan and environmental planning; the biologist Sito Alarcon, who supervised all the work in that field; the economist Joaquim Clusa, due to his economic impact studies; the architect Bernardo de Sola, who was responsible for the integration of the infrastructure in the various affected urban systems; and the engineers Joan Baltà and Jordi Julià, who put forward the main railway proposals. Special mention should also be made of the engineer Francisco Fernández Lafuente, who was the person in the Spanish Ministry of Public Works responsible for coordinating the work in the different major cities, and who understood better than anyone the importance of applying the Olympic experience to large-scale projects, regardless of the administration in charge.

They all made significant contributions to the establishment of the Barcelona Regional we know today.



# Ideas



**MIQUEL SODUPE**

Barcelona Regional Managing Director (1998–2005)

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**‘BR’s fundamental contribution to the city of Barcelona and its metropolitan area was that of generating clear ideas with which to put forward proposals and projects for the transformation and improvement of the city’**

→ 150, River Besòs Environmental Recovery Project. → 193, Forum. → 114, 22@.

→ 110, Rambla de Sants. → 236, Tram.

→ 234, High-Speed Rail and Metropolitan Railway System. → 104, La Sagrera.

Barcelona Regional (BR) was, and is, a public metropolitan agency, created and managed by Barcelona City Council. Its board members included the majority of public companies that made a significant contribution to the development and transformation of the city. The agency’s objective was to study and propose relevant or strategic transformations of the city with proposals that could come from outside—from the Spanish or Catalan governments—or from within the city, when standard urban development knowledge was not sufficient to tackle them with the desired competence. It was a question, then, of forming a company, a small company, that incorporated the worlds of architecture, urban development, engineering, transport, energy, communications, sanitation, the economy and the environment. This idea came about due to the experience garnered during the rollout of the Olympic process, which, in this second phase that started immediately after the Games, required a new agency. It was funded by Barcelona City Council, Barcelona Metropolitan Area and other public companies.

From 1993 to 2005, the city and Barcelona Metropolitan Area underwent deep changes. The projects of the port, the airport, the high-speed train ↗, La Sagrera station ↗, the roof of Sants station ↗, transport, metro line 9, the tram ↗, the recovery of the river Besòs ↗, the opening to the sea, the 2004 Forum ↗, the 22@ district ↗, the expansion of the Fira, the rehabilitation of the Old City, the restoration of the Eixample district, Plaça d’Europa, research proposals, logistics areas, social housing, and many others for which there is no space here, were rolled out. The economic climate of Catalonia was favourable, and the city’s willingness and capacity for management were decisive.

In my opinion, BR made three key contributions to this transformation. The first contribution was the idea that projects were not sectoral, that is: urban development, architecture, environment, energy, water, economy, road or transport, with separate languages that do not often overlap instead, projects were unitary, and reasonable responses had to be given to all these aspects. Consequently, BR sought to be competent in all areas. Secondly, it should

→ 234, High-Speed Rail and Metropolitan Railway System.  
→ 178, Delta Plan. → 150, River Besòs Environmental Recovery Project.

••  
**‘The first contribution was the idea that projects were not sectoral, but unitary, and reasonable responses had to be given to all these aspects’**

be said that to find future proposals, BR sought the commitment of both public and private stakeholders in such a way the city's objectives were taken into account first and foremost but private interests were also duly considered as part of win-win solutions, as a common objective for all. And, thirdly, BR contributed to finding formulas for positive collaboration on all levels of government and in all aspects of public and private management, with frequent arguments, but with results adopted by all the parties as one.

This all-encompassing way of approaching projects allowed the growth of the knowledge necessary to tackle them. The economy and the environment formed an immediate part of the reflections. At the same time the areas to be analysed also grew: city, Barcelona metropolitan area and region, and the regional scope in certain cases. These studies and analyses moved from small enclosed areas to the larger concerns of society as a whole, in order to try to understand the state of play in the economic, productive, social and environmental spheres and where we wanted to go as a society. This research was usually carried out in collaboration with the city's existing arenas for study and reflection.

Initially, the projects were developed in three strategic areas: the Llobregat Delta Plan ↗, the area of the Besòs river ↗ and the arrival of high-speed rail to Barcelona ↗. Subsequently, BR's work was expanded to other projects so that it could systematically cover crucial issues: areas, infrastructure networks and environment. The size of the projects also grew, that is: from the city to the metropolitan area and region and, sometimes, the regional area. Analyses and studies that incorporated the economic, productive, social, infrastructure and environmental aspects of the same projects were simultaneously undertaken. They also considered the impact on citizens, the metropolitan area and the region, as a formula to first determine and then assess the existing processes and finally define which projects were really suitable for a future urban evolution and, consequently, which would have to be immediately rolled out. It should be highlighted that some of the BR professionals who participated

→ 104, La Sagrera.  
→ 193, Fòrum.

••  
**‘BR contributed to finding formulas for positive collaboration on all levels of government and in all aspects of public and private management’**

in the various projects, when they were definitively rolled out under successive governments, were hired for the preparation of the executive projects, such as the case of the 2004 Forum ↗ and Barcelona Sagrera Alta Velocitat ↗, making the final specification of the projects more efficient.

BR's fundamental contribution to the city of Barcelona and its metropolitan area was, then, to use these studies to generate clear ideas about a desired and advisable future scenario in order to put forward proposals and projects for the transformation and improvement of the city.

The original text by Miquel Sodupe included reflections that contextualised the meaning and objectives of various projects, all of them central to BR's activity. We have used these parts of his original text as introductions before the graphic material of each project. In some cases they are verbatim, while in others they have inspired the explanations written by the technicians who selected the material.

# Thank you



**WILLY MÜLLER**  
General Director (2011–2015)

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**‘BR is a think tank that seeks to meet the long-term goal of maintaining and increasing the knowledge of our city regarding issues as diverse as infrastructure, the environment and mobility’**

→ 206, Ronda Litoral Proposals at the Foot of Montjuïc.  
→ 208, El Morrot Waterfront.

First, I would like to thank the current CEO of Barcelona Regional (BR), Josep Bohigas, for asking me to write a short article on my time in the same position from 2011 to 2015 and, noblesse oblige, acknowledge his gesture, which I personally appreciate now that nobility is hardly in abundance.

When Mayor Xavier Trias and his team asked me in 2011 if I was willing to move from my private office to run BR, I had no doubts about whether to accept. For me, who arrived in Barcelona on the National Day of Catalonia in 1985, it meant recognition of my almost 30 years in this city and an opportunity to give back a little of what it had given me. Without doubting it for a minute, I shut down my professional office as I understood that I would have to fully commit to this new mission.

The politicians made it very clear what my mission was to be.

First, it was necessary to develop what for years had been and remains one of my major projects as an architect and land planner in the reflection on Barcelona: the Ronda Litoral-El Morrot project **■**, to which since the late 1990s we have continuously dedicated time and effort in my office. The project aims to define a new space linking the port and the city, but fundamentally to recover new mobility in front of Montjuïc, placing a different spin on the old projects of the Ministry of Development to split the Ronda Litoral **■**. This has been one of my major challenges, and I honestly think that, in the years I was in charge, these objectives were met with the signature of the agreement on the transfer of the land of the old El Morrot station to the city, signed by ADIF, the Ministry of Development, the Port and Barcelona City Council. This agreement opened up the future possibility of developing a major project in this area.

All this history, and the sequence of projects over four years—also shared with some of the city’s first-rate professionals, like Carlos Ferrater, Andreu Ulied and Ramon Folch, and also international professionals, like Martha Schwartz and Carlo Ratti—is summarised in the publication of the book that accompanied the exhibition *Port-Ciutat*, which regrettably no one would ever see, analyse or assess, because the current administration decided not to distribute it.

The second challenge was a specific commission from the new political team that was leading the city at the time: have BR spearhead the internationalisation of Barcelona's and Catalonia's architecture and urban development. This was only a partial task for me, because it had already been started thanks to the clairvoyance of my predecessor, Josep Anton Acebillo, who created the company *Barcelona Strategical and Urban Systems* (BcnSus) before my arrival in order to develop projects around the world. Our desire to go in this new direction, placing BR and Barcelona City Council at the top, was really important, above all taking into account that we had just come out of a crisis without precedent in our profession, which needed institutional help to be able to access the international market and offer its experience. The crisis situation also affected the local workload that needed to be dealt with by the large staff at BR, which allowed us to dedicate part of this potential to new initiatives.

This was how it was done under my management, accompanied of course by Mayor Trias and his team on innumerable trips, collaborating with different offices in the city on international projects, with the purpose of advertising our experience and talent. In this regard we also managed to meet our objectives, like forming, along with Ricardo Bofill's Architecture Studio, the only Spanish and Catalan team to lead the expansion of Moscow; being able to participate along with Ramon Folch and Carles Llop on the new Lima-Callao Metropolitan Plan ↗; winning the international tender funded by the World Bank to manage the Rio de Janeiro Metropolitan Plan; submitting our ideas for the *Ringstrasse* in Vienna ↗; undertaking the CLUE project and being commissioned to organise the Barcelona-Hong Kong Urban Exchange Platform ↗, among many other international projects, published in various local and international media. This work must logically be understood to be a long-term commitment, not just for one mandate, to international consolidation and institutional support.

But it is not possible to summarise BR's work in what each CEO sets as the objectives of their tenure, given that it is a think tank that seeks to meet the long-term goal of maintaining and increasing the knowledge of our city in subjects as diverse as infrastructure,

↗ 253, Hong Kong.

↗ 258, Vienna.

↗ 254, Lima.

the environment and mobility. And this is only possible due to the excellence of the company's professionals. In this regard I must mention the work done during my time by Maria Buhigas, Marc Montlleó and Jordi Fuster, each of whom headed large teams of professionals which have received due recognition.

••

**'What should BR do in the future?' I think that BR is ready to be, like other major international agencies, a major public player in the production of knowledge and experience from Barcelona for the rest of the world to use'**

However, all management also comes with its own chiaroscuros. Someone like me, who had left the private sector to enter public life for the first time without any previous specific preparation, should perhaps have been a little less innocent and a little more mistrustful, but I think that there is nobility in moving from private life to public life with all its consequences, despite its upsets. Not everyone who accompanies you in management is in the same situation and those who live professionally from public activities—some for their entire lives—do not always work with the same vision. I have no doubt, in any case, that everyone was loyal and efficient and worked their fingers to the bone.

I am going to finish these lines with a reflection I had the opportunity to make while I was still in charge: what should BR do in the future? I firmly believe that for years it has not been necessary to help the technical services of Barcelona City Council, which was the reason BR was established. I am not of the opinion that it should become, like some people want, a specialist satellite—a SWAT team—for Barcelona Metropolitan Area. I think BR is ready to be, like other major international agencies, a major public player in the production of knowledge and experience from Barcelona for the rest of the world to use. And we would be not only of great help to others, but also something for our local professionals to be proud of, and a mirror held up to our society. In that way, they will continue to look at us, and perhaps admire us, in the rest of the world, make no mistake about it.

I am grateful, despite the upsets, for the years during which I was CEO and also for this opportunity to talk about my experience.

# TEAMS

**A** Daniel Abella Romano, Josep Anton Acebillo Marín, Antoni Alarcon Puerto, Aida Alemany Sagalà, Pere Alsina i Bilbeny, Eladio Álvarez Gómez, M. Angel Andujar Meroño, Aleix Arcarons Camps, Jesús Arévalo i Bravo, Gustavo Arévalo Roa.

**B** Mariàngels Badia Gascó, Emilio Balagué Pavón, Joan Baltà Torredemer, Ascensión Barranco Martín, Míriam Barrero Cortés, Lluís Barril Basil, Maria Elisabet Bassi Riera, Raquel Belda, Begoña Bellette Donay, Fernando Benedicto Dumall, Elsa Bertran Brancós, Josep Bohigas Arnau, Pere Boladeras Perpiñá, Manel Bori Meda, Maria Buhigas San José.

**C** Adrián Cabezas Vegas, María Isabel Cadenas Álvarez, Joaquim Calafi Rius, Laura Cancelo Chamorro, María Inmaculada Cano Martínez, Albert Carbonell Ferrer, Jaume Carné Cabré, David Carpi Iglesias, Pablo Casals Hernandez, Núria Cases i Sampere, Jordi Castelló Abril, I. Mauricio Castro Benavides, Jose Manuel Cetina Aguado, Yvonne Cifuentes Brennan, Jacob Cirera Val, Joaquim Clusa Oriach, Montserrat Comas Pujol, Gemma Conde Cros, Alejo C. Coral Alcolea, Maria J. Cordobilla Cascales, Alberto Cot Alcega.

**D** Jesús G. de La Torre Montmany, Bernardo De Sola Susperregi, Lluís Domènech Amadó, Miguel Domingo Carceller.

**E** Laia Eraso, Enric Escribà Nadal, Carmen Escudero Fernández.

**F** Enric Fargnoli Domingo, Gerard Feliu Montesinos, Natalia Fernández Morales, Laura Fernandez Novell, Ignasi Fernandez Solé, David Ferrer Canosa, Andrea Fiorucci, Josep María Forcada, Maria Foselli, Ricard Frigola Pérez, Jordi Fuster Colomer.

**G** Teresa García Alba, Ramón García-Bragado Acín, Gaspar García Buyreu, Andrés García Del Castillo, Rubén García Loro, Miquel Garriga Aldeguer, Sergi Godia Fran, Sonia González Boillos, Marcelo González Villalba, Raquel Gonzalo Isla, Enrique Gornés Cardona, Alba Guillén Capell.

**H** Silvia Hita Fernández, Sonia Hornillos Sáenz.

**I** Aleksandar Ivancic.

**J** Francisco Jijón Calderón, María Mar Jiménez Carreté, Cristina Jiménez Roig, Ingrid Juan Petit, Jordi Julià Sort, Anna Julibert Foyo.

**K** Neda Kostandinovic.

**L** Emilio Lamora Font, Jose Lao Mulero, Oriol Linares Rodríguez, Joana Llinàs Serrahima, Arnau Lluch Torrents, Jorge López Benasat, Natalia López Coscojuela, Joffre López Oller, Ángel López Rodríguez, Daniel Lorca Ruiz.

**M** Margarida Macián Fillat, Adriana Malé Tolo, Ileana M. Manea, Oscar Manso Cortés, Ignacio J. Marcano Fernández, Silvia Martí Torrent, Silvia Martin Fernandez, Antonio Martín Villegas, Moisés Martínez Lapeña, Albert Martínez Lostal, Ricard Martínez Monteagudo, Laura

Martínez Sánchez, Gabriela Martínez Velez, Carla Martínez, Joan Marull López, Jordi Mas Herrero, Irene Mela Caballero, Jordi Mercadé Rogel, Ariadna Miquel Amengual, Antonio Miquel Cervero, Ana Maria Molino Roca, Joaquim Molins Amat, Adolfo Monclús Jurado, Carlos Montalbán Turón, J. Carlos Montiel Díez, Marc Montlleó Balsebre, J. Carlos Montoliu Sanllehy, Xavier Montserrat Martínez, Susana Morcillo Guillan, Philip J. Moyersoen, Guillermo Muller Zappettini, Montse Muñoz.

**N** Marius Navazo, Starsky Naya Lara, Margherita Neri, Álvaro Nicolás.

**O** María Olives Mateu, Angel Ormaechea Monreal, Adrià Ortiz Miguel.

**P** Lúdia Padrós Prats, Marçal Palma Bartoli, Ruben Palma Chumillas, Laura Parellada Rovira, Ana Paricio Cárceles, Maria Isabel Peirató Alamillo, Sara Peralta Garúz, Oriol Pérez-Portabella Puig, Núria Piè i Josa, Bàrbara Pons Giner, Emili Del Pozo Trías, Martina Prat, Carolina Prats Anton, Patricia Prats Boned, Josep Prats Gascón, Arnau Prats Puntí, Ferran Puig Pons, Anna Puiggròs Xirinachs, Francesc Puigmartí Carulla, Gemma Pujol Iñigo, Miquel Pybus Oliveras.

**Q** Marc Quesada Ruiz.

**R** Alicia Ramos Jordán, M. Gloria Ribera Crusafont, Alejandro Ríos Román, Claudia Rivera, J. Carmelo Rivero Ojeda, Alejandro Rocabert Marcet, Patxi Rodríguez Díez, Gustavo Rodríguez Ferrer, Daniel Rodríguez Rey, Clara Roig Cortés, Sergi Romero Moreno, Sergio Ros Chaos, Luis Roura Bonet, Anna Roy Solduga, Verónica Rueda Boada, José María Ruiz Núñez.

**S** Mireia Sabata Castel, Maria Sales Paradell, Alexandra Sánchez Cobo, Itzel Sanromà Moncunill, Joan Sansa Hurtado, María José Santiago Coto, Ricardo Santos Rodríguez, Corpus Senes Garcia, Eva Serra De La Figuera, Josep Maria Serra Majem, Giorgia Sgarbossa, Miquel Sodupe Roure, Hector Soriano Alfonso, Mauro Soto Garcia, Ioanna Spanou, Pere Suau Sánchez, Anna Subirats Ribas, Omar Suliman Jabary Salamanca, Emma Suriñach.

**T** Marc Taulats Ibars, Nuno Tavares Margalho, Oriol Teixidó Escoté, Carlos Teixidor, Antoni Tió i Sauleda, Moisés Tomás Rubio, Miren Torán Ayestarán, Rossend Torrens Pujadas, Helena Torres Grau, Alejo Trullás Rosal, Juan Tur Torres.

**U** Francisco Ullod Marcos.

**V** Erick Valdez Valderrama, Enrique Vall Procas, Marta Vancells Morón, Anna Vergés Parisi, Laura Vergoñós Pascual, Maria Vila d'Abadal Castilla, Manuel Villalante Llauredó, Claudia R. Villazón Chávez, Javier Villena Fernández, Maria Angels Viñas Fusté, Jordi Vivaldi Piera.

**Y** Patricia Yanes Ojeda.

**Z** Beatriz M. Zaragoza Díaz.

**215**  
PEOPLE

1993

2018

# Barcelona Regional Is...

...a dream that keeps you awake.

...a public service tool to think about how to improve Barcelona and its environment.



IGNASI MARCANO

LAURA MARTÍNEZ

GUSTAVO RODRÍGUEZ

ARNAU LLUCH

GABRIELA MARTÍNEZ

JORDI MERCADÉ

JORDI CASTELLÓ

ANDRÉS GARCÍA

ASCEN BARRANCO

DAMIÁN MARTÍNEZ

NATÀLIA LÓPEZ

ILEANA MANEA

...the work of today for the metropolitan tomorrow.

...the fire extinguisher and the problem solver.

...an instrument to design and redesign the metropolitan city.

...a recharging point to be excited about your work.



MARIA OLIVES

XAVI MONTSERRAT

SILVIA MARTÍ

ENRIC FARGNOLI

MARIA VILA D'ABADAL

IRENE MELA

RICARDO SANTOS

MIQUEL DOMINGO

MARCELO GONZÁLEZ

JOSE MANUEL GUTIÉRREZ

BÁRBARA PONS

ADRIÁN CABEZAS



...its objective is to improve the quality of life of metropolitan inhabitants.

...a technical bureau that is the envy of many organisations.

...a mystery, until you get to know it, when it becomes delirium, aspiration and a marvellous tool.



IOANNA SPANOU

SÍLVIA HITA

JOSEP BOHIGAS

ALBERT CARBONELL

LLUÍS BARRIL

MARÇAL PALMA

LAURA VERGOÑÓS

GUSTAVO ARÉVALO

JOSÉ LAO

CARLES PITARCH

IVÁN RABAL

...an opportunity for us to leave a positive print on the place where we live.

...a unique experience in the professional life of its employees.

...beyond required.

...an amazing team.



ELADIO ALVÁREZ

EMILI LAMORA

PERE BOLADERAS

GERARD FELIU

MIGUEL GARRIGA

ARNAU PRATS

QUIQUE GORNÉS

ALEIX CORAL

JUAN CARLOS MONTIEL



...the management of all  
types of determinants.

...a network of experts who  
work for the common good.

...it imagines the dream  
that Barcelona wants to be.



NÚRIA CASES

PERE ALSINA

PABLO CASALS

MARIBEL CADENAS

JOAN CADENAS

RUBÉN PALMA

ALURA PALMA

MARIA BENEDETTA FOSELLI

BEATRIZ ZARAGOZA

CARMEN ESCUDERO

JOSEP PRATS

NUNO MIGUEL TAVARES

ENRIC VALL

...leadership that provides  
remedies and designs  
Barcelona's future.

...global, critical vision  
of the territory.

...youth, freshness,  
effort, team and multi-  
disciplinarity.



MANEL VILLALANTE

NÚRIA PIÉ

ISABEL PEIRATÓ

ADRIÀ VIVES

ENRIC ESCRIBÀ

CLARA ROIG

ERICK VALDEZ

LAURA CANCELO

DANIEL LORCA

...a rolling stone and  
a scatterbrain.

...it is not necessary,  
but it is essential.

...a part of my life.

...it gives you something  
better than you asked for.



OURANIA CHAMILAKI

ALBA GUILLÉN

MARGHERITA NERI

ANNA SUBIRATS

ANA PARICIO

CLAUDIA VILLAZÓN

LÍDIA PADRÓS

JAVIER VILLENA

JORDI FUSTER

JOANA LLINÀS

CAROLINA PRATS

ADRIÀ ORTIZ  
MIREIA SABATA

...know-how for major urban  
transformation projects.

...it questions what is  
unmovable and proposes  
the possibility of change.

...a family that works.



GERARD PÉREZ

GEMMA CONDE

MARC MONTLLIÓ

CRISTINA JIMÉNEZ

MIREIA COSTA

SÍLVIA MARTÍN

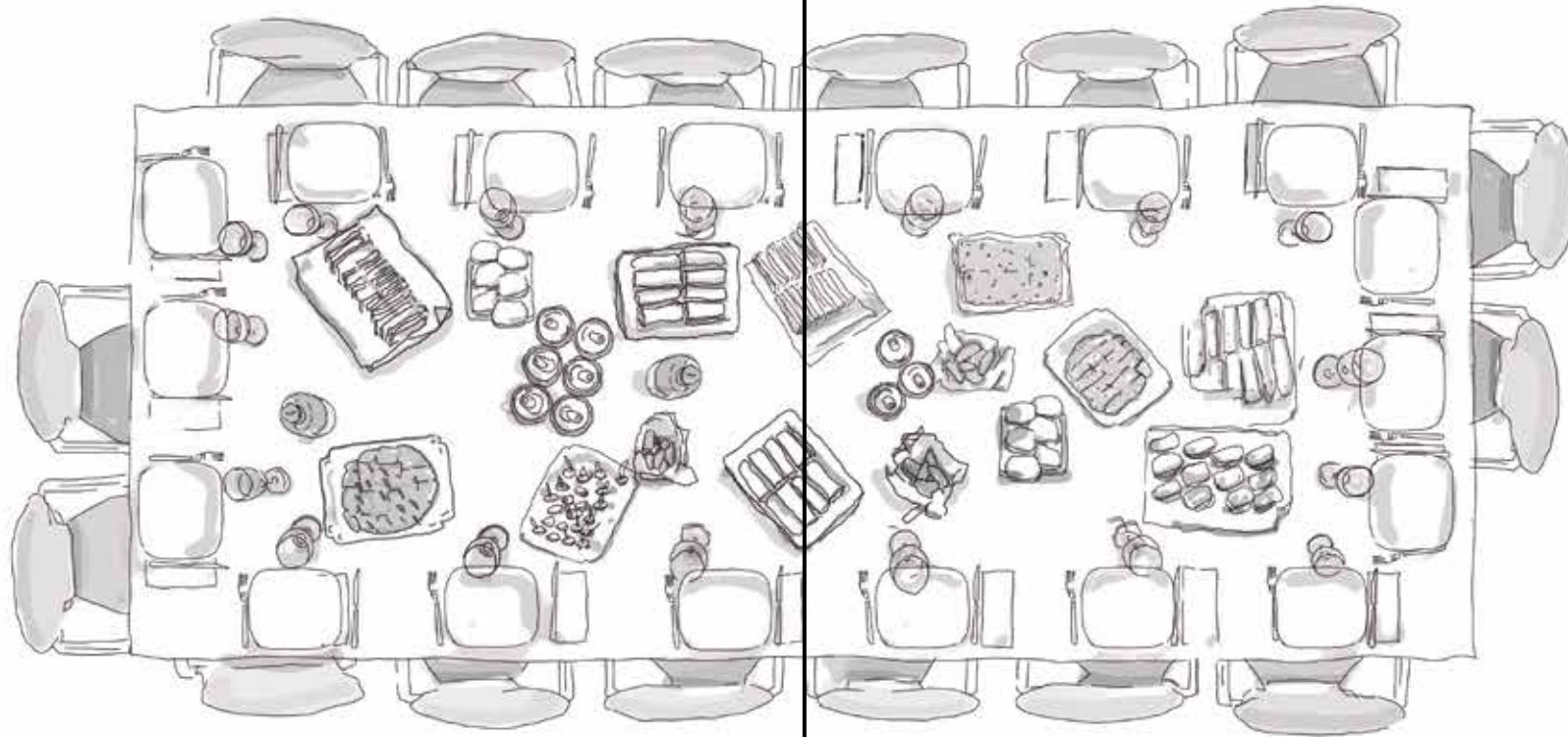
ANTONI REUS

ITZEL SANROMÀ

MIQUEL PYBUS

GIORGIA SGARBOSSA

SERGI ROMERO



If you ask a group of employees, former and current, to write a few lines about Barcelona Regional, they might see it as a burden. So we opted for a simple dinner in the BR meeting room, where they had spent so much time. In a certain way, it was a celebration, and Carles Col was witness to it.

# The berremites

CARLES COLS

Journalist

..

**‘A dinner with the “Berremites” is an enlightening vivisection of the keys to the company’s success’**

Dinner at BR. Very simple. Croquettes and Spanish omelette. Little more than a bite to eat. Your stomach tends to shrink a little when you sit down at a table with fifteen “Berremites” (or BR-mites, as Barcelona Regional’s employees are comically known to each other), part of the team that has shaped Barcelona and its environment. All of them have serious technical and scientific qualifications under their belts, qualifications in which mathematics still play the essential role. The most likely outcome, if you come from the arts, is that you won’t pass muster, you’ll get lost. There is an old story about a joke that perfectly summarises this. Some mathematicians are having a party. They are a little tipsy. One decides to tell a joke. ‘Jesus is on the bank of the river Jordan and says to his apostles: “ $y = ax^2 + bx + c$ ”. Everyone

laughs except one. He is an arts graduate and doesn’t get it. It’s a parabola (parabola and parable are the same word in Spanish).

The dinner, however, was wonderful. Around the table people recount anecdotes, take trips down memory lane, share secrets, and there are even some digs at the offices of other administrations, but it is more interesting to observe (using the language they themselves use) the interstitial spaces. The dinner is a vivisection that shows the keys to the success of BR’s projects, how they are cooked. They should patent the method. Just an idea.

The notes provided from this point, maybe a little chaotically, are sentences plucked from the air and some of my own footnote reflections. An example: Maria Buhigas, architect, breaks the ice at the

very start. **‘Here questions could always be asked. It was always natural to look at things from a different perspective, to question accepted solutions’.** It transpires that it is completely untrue that the Romans built aqueducts because they did not understand the essential principles of communicating vessels. It may be the case that the tradition was simply not questioned. Which for Segovia was clearly a good thing. The secret, it seems, is multidisciplinary (the longest word in this text, incidentally). Buhigas, a talent trained in Columbia, in Urban Planning, landed in 1999 in the salad of academic disciplines that BR is, with the intention of being a contrarian.

It seems that there was already great diversity in the genesis of BR, among the foundational core who had come from the Olympic Games. This is affirmed by Bernardo de Sola, who in these cases is considered to be the organisation’s historian. **‘The 1980s’,** explains this triple jump champion, **‘were a school; we studied classical civil engineering subjects, but conceived from the perspective of architecture, and, in short, moreover, in a very brief period of time, so the the project could become a physical reality’.** People say that Bernardo is the man who architecturally humanised the Ronda de Dalt ring road. Thank you. He recalls that there was no secret to it, it was simply a question of dedicating hours to it and, as they say, tearing down the walls between professional plots to let intellectual air run between them.

Another joke. More than anything to lighten the mood. This one is about engineers. There are two of them. They see a glass of water. They don’t argue

about whether it is half full or half empty. They agree on a diagnosis: the volume of the recipient is twice what it needs to be. They could calculate the period of return. That could be a different version. This joke does not appear to provide a faithful portrayal of the profession. At around minute twenty of the meeting, a curious debate starts. What is a street? There is no consensus. Whether it has a cycle lane or not, for example, is not significant. ‘It is only paint and plastic’. ‘The same old Bernardo’. Two of his colleagues exclaim in unison. He insists. He defends himself with a very professional phrase. **‘Infrastructure is what breaks up the territory. It is a landmark and it should be done properly’.** The finality of this statement makes me think of Ernest Rutherford; you know, the guy who said ‘All science is either physics or stamp collecting’. The funny thing, even though it is not relevant here, is that Rutherford was awarded the Nobel Prize in Chemistry.

It seems that you can only see that BR is a very special ecosystem, like a densely populated wood, when you get some distance from its trees. **‘The best thing that happened to me at BR was being fired’.** That Joan Sansa, he’s something else! **‘At the beginning, clearly, my world fell apart, but I soon realised that it allowed me to put the muscles I’d built up in the organisation to the test’.** It turns out he was built like Hercules. He had joined BR thanks to Bernardo de Sola, when he had just started shaving, architecturally speaking; he was very young.

The professional rev-counter of this company spins more quickly than in the rest



## TEAMS

**BÀRBARA PONS**  
Architect. BR Urban  
Strategy Area Technician  
(2017—...).

**JORDI MAS**  
Architect. Technical Manager  
of the Besòs Office (2008—  
2011). Currently: Deputy  
Mayor of Santa Coloma de  
Gramenet

**PERE SUAU**  
Geographer. BR Mobility  
Technician (2005—2006).  
Currently: Consultant

**GUSTAVO RODRÍGUEZ  
FERRER**  
Industrial engineer. BR Energy  
Infrastructure Technician (2002—  
2010). Head of the BR Energy  
Infrastructure Area (2010—...).

**MARIÀNGELS BADIA**  
Lawyer. Lawyer at the MPU\*  
(1987–1994). Head of BR's Legal  
Services and Secretary of the  
Board of Directors (1994—2000).  
Currently: Retired

**JOSEP MARIA SERRA**  
Architect. BR Urban  
Projects Technician  
(1995—2000). Currently:  
Santa&Cole

**MARIA BUHIGAS**  
Architect. BR Territorial Studies  
Technician (1999–2010). BR  
Urban Strategy Area Director  
(2010—2014). Currently:  
Consultant

**MARC MONTLLÉO**  
Biologist. BR Environmental  
Technician (1999—2010). BR  
Environmental Area Director  
(2010–the present).

**ANNA VERGÉS**  
Architect. BR Housing  
Technician (2015–2016).  
Currently: Coordinator of  
the Metropolitan Housing  
Observatory (2017—...)

**JOSEP BOHIGAS**  
Architect. General Director  
(2016—...)

**BERNARDO DE SOLA**  
Architect. Technician at  
the IMPU\* (1987–1994).  
BR Head of Urban Projects  
(1994—2012). Currently:  
Retired

**JORDI JULIÀ**  
Civil Engineer. BR Mobility  
Manager (1994—2004).  
Currently: Consultant

**SITO ALARCÓN**  
Biologist. BR Environment Manager  
(1995—2006). BR Deputy Manager  
(2006—2011) / BR Management  
Assistant and also Manager of the  
Besòs Consortium (2012—2017).  
Currently: Director of Barcelona Zoo

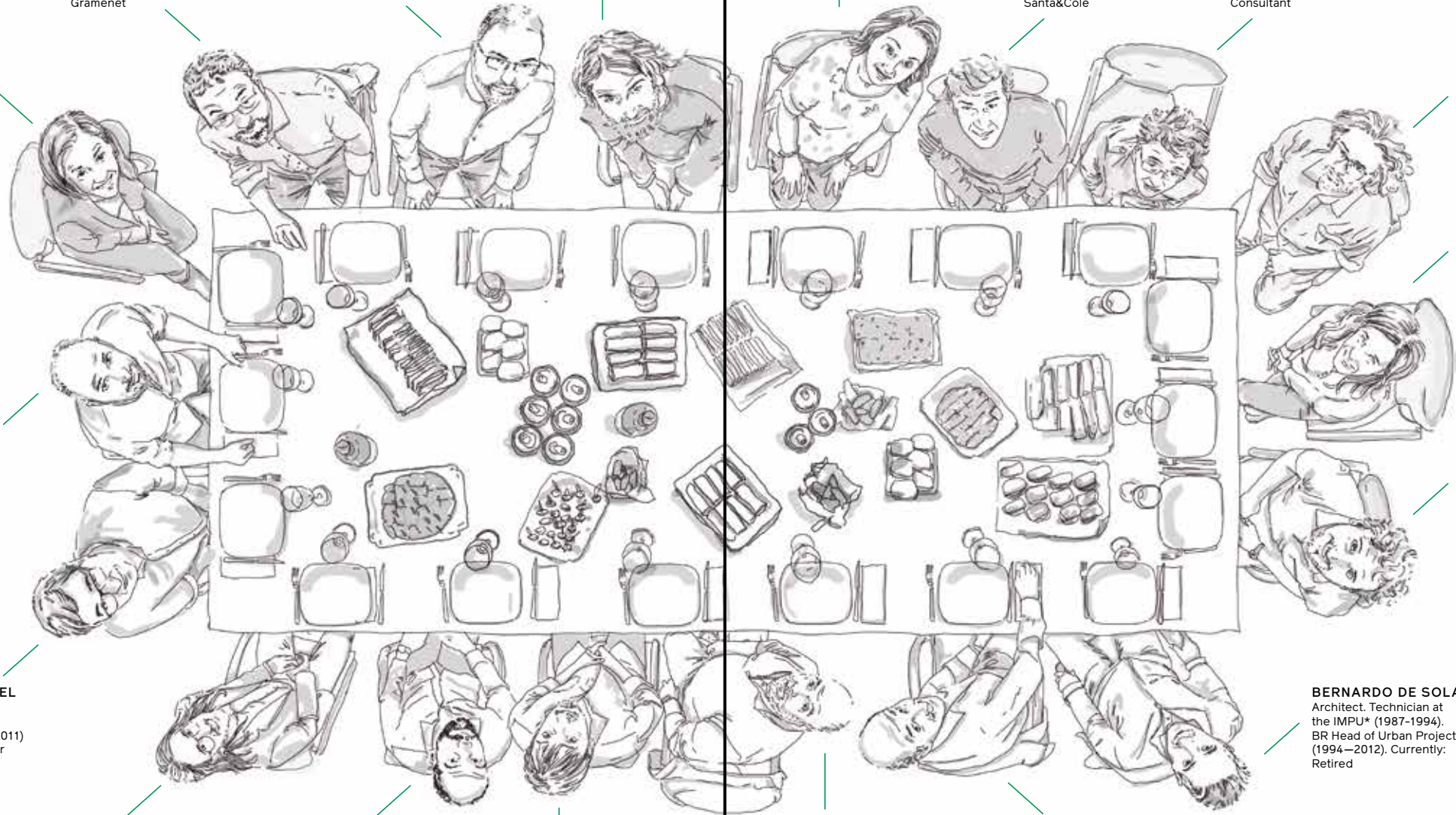
**CARLES COLS**  
Journalist

**ALVARO NICOLÀS**  
Civil Engineer. BR Mobility Technician  
(2004—2006). Currently: Advisor to the  
Mobility Area of Barcelona City Council

**JAVIER VILLENA**  
Geographer. BR Mobility Area  
Technician (2017—...)

**JUAN CARLOS MONTIEL**  
Architect. BR external  
collaborator (1994—2001).  
Managing Director (2006—2011)  
and Deputy General Director  
(2011—...)

**JOAN SANSÀ**  
Architect. BR Urban  
Projects Technician (2005—  
2012). Currently: Barcelona  
City Council Technician



\* IMPU: Municipal Institute for Urban Development  
Promotion and the 1992 Olympic Games

of the world. For this reason, mentioning BR does not go unnoticed on a CV. **'It's true, it's true. When you're looking for work and you say that you were at BR, they look at you like you were from the CIA. Actually it's even better, they look at you as if you came from the CSI of urban development'**, concludes Sansa.

There are more testimonials in the same line. For a moment, this seems like a meeting of "Berremites Anonymous". For his part, Sito Alarcón, whose CV as a biologist can proudly include his role in a resurrection, that of the river Besòs ↗, takes a step further in this direction. **'BR was a university for me. When you leave here, the truth is that you bump right into the rest of reality [and bang your nose]'**. He doesn't say 'bang your nose', but we shouldn't be scrupulously literal with his words.

This idea, the idea of a *BR University*, crops up again and again in this get-together. BR is like a type of Petri dish where major projects are cultivated. **'This, in reality, is a laboratory, but no one really talks about that much. I was here from the start'**, recalls Josep Maria Serra, **'when the people in these offices were working to design the mouth of the port and the runways of the airport'**, which is easy to say. **'Shortly after, they were building the La Sagrera ↗ model'**, he continues. Impressing Serra must not be an easy task. It should be remembered that he is the author of *Manual d'Elements Urbans* [The Urban Elements Manual], which is pretty much considered to be the bible of urban space.

→ 150. Environmental Recovery of the River Besòs.

→ 104. La Sagrera.

••

**'At BR headquarters there are architectural walls, of course, but the secret is that there are no professional walls'**

What was, and still is, surprising, in the words of Jordi Julià, is the power of the human team. **'As far as I know, there are no other consultancies with this power'**. And Alarcón adds that the real achievement is that, despite being forced together under a single roof, all this talent has not fallen into the usual human pitfall of degenerating over time towards divided kingdoms fighting among themselves. 'This didn't happen here'. The secret? 'Generosity', stresses Maria Buhigas. She joined BR when she was 27 years old. And she got stuck in straight away. She recalls that the doors of the offices were there to be opened so you could ask questions. Do not try this at home (unless you work for BR).

Before proceeding, let's read one of the footnotes. It's a slightly off-topic observation. The dinner is being held at a really strange place. The headquarters of BR are in the free trade zone. It is a place that is so inhospitable that they couldn't muster up the courage to name the streets after great men and women of politics, science or literature, as is the case in truly urban areas. Here the streets are letters and numbers. The reflection is as follows. The decision to locate BR's headquarters in this "non-place" is the work of a great sage. It may be that it was just because the price per square metre was cheap, but it is also interesting that it is outside of space and time, invisible. The idea came about due to something to which Serra

alludes. **'Here we never thought about the next elections, we thought about Barcelona, full stop'**. The elections were a concern where the streets bear the names of people or planets or other cities. BR was a singular case. Bàrbara Pons, urban strategist, goes further. **'It took on its own life, above all when the people who worked there discovered that this was a big family'**. 'Pons', says one of the party, sotto voce, 'is especially important, given that it is in hands like hers that BR will make progress'. She is, in athletics terms, a relay runner.

••

**'Wardrobe essentials is an expression that takes on special meaning at BR. Here there are clothes to dress Barcelona in a thousand different ways'**

It is not easy to set a specific date for a change such as this. When did BR know that it was a happy anomaly? Here is a possible answer. It is only symbolic, but it is representative. With some money saved from here and there, someone (let's not make accusations) decided to buy some advanced, that is, expensive contamination control and prediction software ↗. It was not a political decision. When, some time later, it actually became one, the software was already installed. It is one of the jewels of BR's crown. There are more of them. The British royal family, as we know, keep theirs in the Tower of London. BR's are, in part, in a cabinet. Everyone at the dinner is familiar with the cabinet.

→ 130/230. Air Quality.

**'This organisation is defined,'** Marc Montlleó says as he takes up the story, **'by the degrees of freedom with which we work, the capacity to generate our own projects and, sometimes, the capacity to recover projects that had been shelved'**.

On a shelf in the cabinet, naturally. It is BR's superpower. That is more or less how they explain it. Legend has it that there are a thousand projects behind those doors. One day a meeting with another administration had to be attended. In football terminology, they had to outplay their opponent. It was the day of the briefcase with wheels. Apparently, this is a story often told in the company. It was a question of overwhelming the other party with arguments. They almost did not fit in the case. They are stories that Montlleó knows because he joined the company in 1999 as an intern, thanks to Sito Alarcón. He was BR's guy for so long at the Besòs riverbed site, he knew it in so much detail, that he is our Tom Sawyer. Today he is the director of the environment area.

In this type of after-dinner conversations there is never a lack of regrets, as Josep Bohigas says, repeating, like a litany, that the past was better. We are about to get there. It may be because there is not much dessert. But, before the dark, a little more light. The light is from Pere Suau, geographer at BR in 2005 and 2006, and a prestigious specialist in airport systems. He wants it to be known that during his period teaching abroad he discovered that nobody could challenge the UK and the US in certain subjects, but in terms of the capacity to understand the complexity of the projects that BR is audacious enough to take on, they are wanting.



Now back to the original point: regrets. The first, how surprising it was for many of them that when the father of BR, Pasqual Maragall, was elected President of the Government of Catalonia, the company did not take an equivalent step forward. It was not due to a lack of internal will or a lack of preparation. Jordi Julià recalls that BR paid his salary to draft two plans, one for roads and another for railways, for Catalonia. Footnote. In literary uchronias, it is called a Jonbar hinge, the point at which the story of a place could have been different if something different had happened. For example, if the Government of Catalonia had created its own BR. 'Maybe in this uchronia the Rodalies local railway network ↗ would work better', is heard from one end of the table.

→ 238, Rodalies.

More regrets. It is not a desire to rub salt in the wound. The guests miss the times in which municipal governments were not built on foundations of sand. **'Nowadays, municipal politics is a bit like a cow, which has enough to contend with with scaring off flies'**. This is said by someone who is now on the other side of the line. For some time now, BR has been more immersed in day-to-day operations. Montoro (the Spanish Minister of Finance between 2011 and 2018) froze the municipal staff budget and BR became a repository for intellectual talent applied to everyday matters. Everyday matters, incidentally, are sometimes very bitter. **'Can you imagine having to construct the Eixample district now? You'd have to negotiate on a house-by-house basis'**. The image conjured by Álvaro Nicolás (seated next to Jordi Julià, Cristina Jiménez and Jordi Fuster, forming a mobility

four of a kind) breaks the tension. It is almost a joke about urban developers. By the way, do you want to hear another one about mathematics? There are a couple of topologists in a café having something to eat. They're not having a good time. They can't tell the difference between a cup and a doughnut. Topologically they are the same object.

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**'It wouldn't be a dinner of former colleagues without any moments of regret. Here, that time when BR could have accompanied Maragall to the Government of Catalonia'**

After two hours of dinner, with coffee grounds now on display at the bottom of the diners' cups, a question is fielded to the table that, strangely, had not yet surfaced: the *Acebillo Era*. This delay is curious, above all taking into account that then, when BR was enjoying its fame and making models on a 1:1 scale (the pilot test of the tram ↗ on Avinguda Diagonal, as the table remembers), Josep Anton Acebillo, after whom this period is named, said that it was necessary to install lights at the Besòs dams. No, they told him, they will not be seen because the water is turbid. Time has proved him right, it is crystal clear now.

→ 236, Tram.

Julià recalls that Acebillo commanded something more than respect but less than fear. Without doubt, he was your passport. **'When you had business with a directorate-general, in another administration, and they asked you, with some disdain, who you were, you replied that you came on behalf of Acebillo and that, if they**

**preferred, he could come in person'**.

That seemed to do the trick. Acebillo, as those who know him are aware, is a force of nature. People like him are often found in other fields, like cinema or literature, for example. But in those cases you should take a closer look, because there is usually a publisher or a film producer in the wings to smooth out rough waters. In this case it is the lawyer Mariàngels Badia, the keystone that ensures that BR's legal architecture does not collapse. One of the diners, in a small group, once the get-together has ended, deigns to highlight her importance. Her good manners should not confuse you. They were, it seems, her weapon. People always did what she said. Even Acebillo.

As I look at the notes I took during the dinner I can see there are only two small pages left to review. They are marked with an asterisk. They were taken during the dessert, which tells me they may be a good way of finishing this text. The first asterisk was to regret the last-minute absences, the people whose schedules precluded their attendance, and dedicate a few lines to them. The non-attendees were Ferran Puig, who one fine day left BR to work on the city's very own pyramid construction project, La Sagrera ↗ (you don't get the chance to sit down with Imhotep every day), and Jordi Fuster, a case worthy of some study. He joined BR as a civil engineer straight after graduating. So far, nothing unusual. He is an expert in mobility. He is not the only one. However, he is an expert almost to the point of osmosis. He has been using public transport to travel

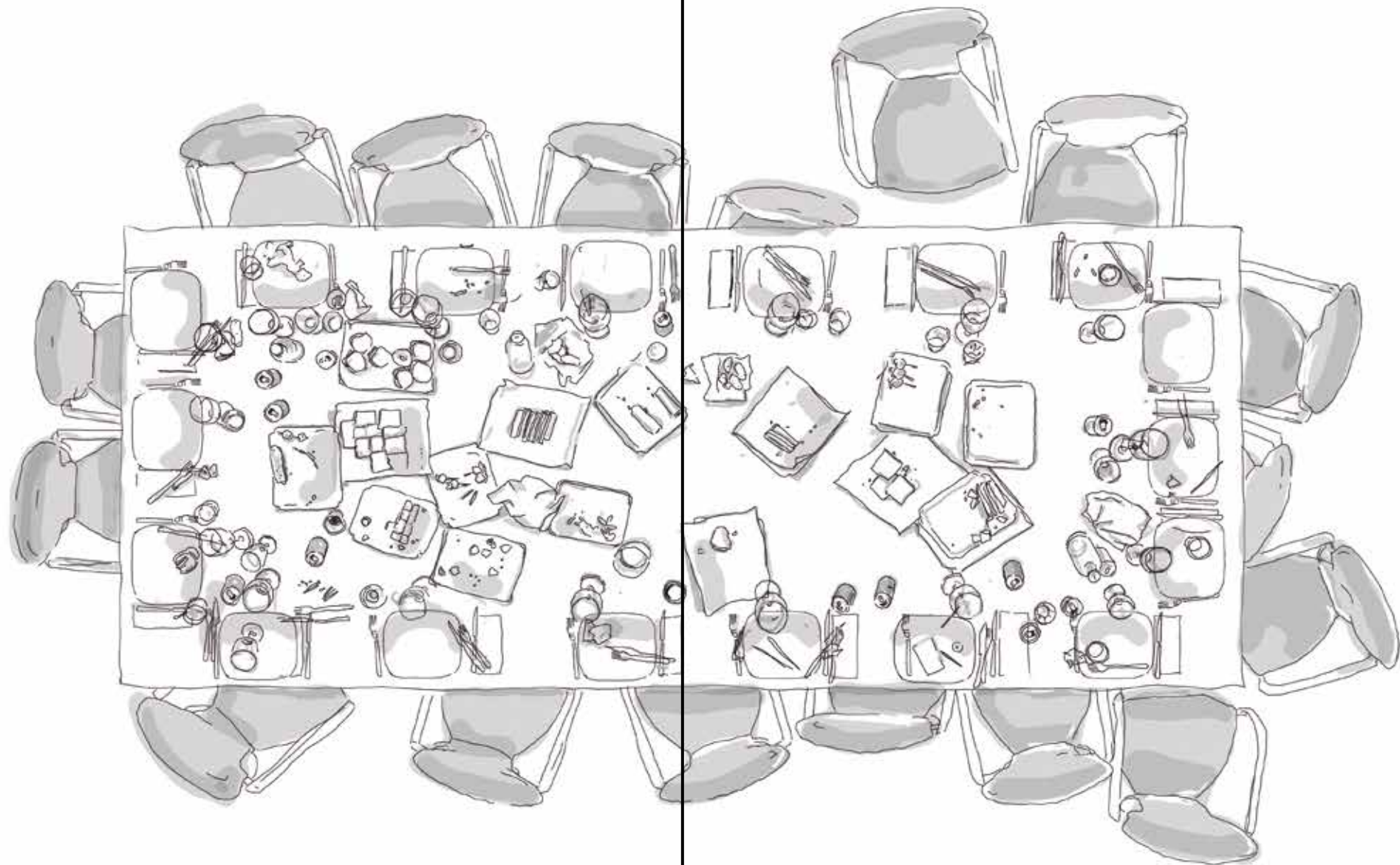
→ 104, La Sagrera.

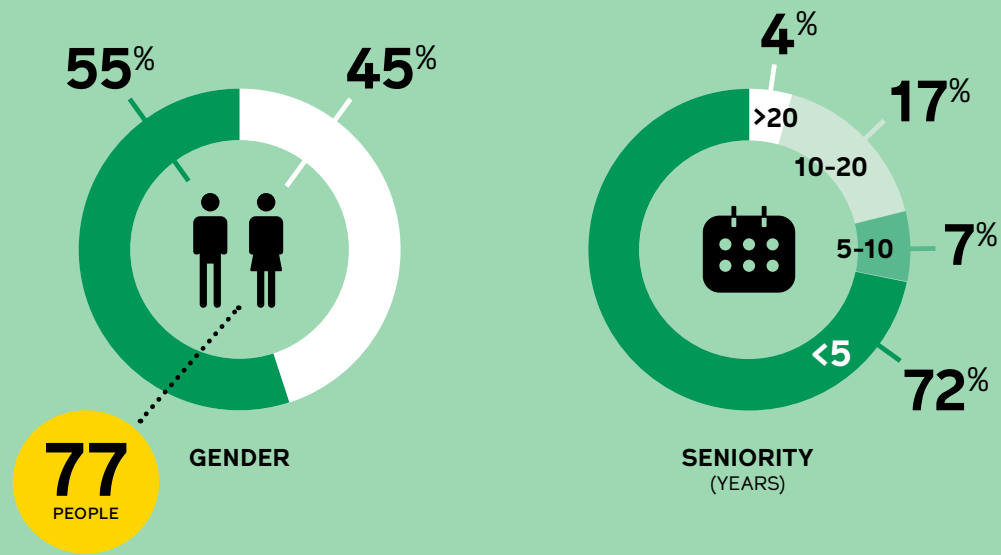
from his home, in the distant Les Masies de Voltregà, to the office for 25 years.

The other asterisk in the notes is next to the initials "JM". It refers to a few very short and heartfelt words that Jordi Mas made. He left in 2001 and, given what he said, it seems that he will always remember BR. **'Thanks to Barcelona Regional I have done things that I would never have imagined. I have been in the Besòs river ↗, with water up to my knees. I have been in the depths of Collserola ↗, in a tunnel that runs through the mountain. I have stood before the tunnel boring machine used for the L-9 metro line. I have been thirty metres down, in the underwater reefs ↗ off the beaches of Barcelona'**. OK, it is not Shakespeare's St Crispin's Day speech in Henry V. Mas is after all an architect. But these four memories (in my personal opinion) constitute a good summary of this dinner held in honour of BR.

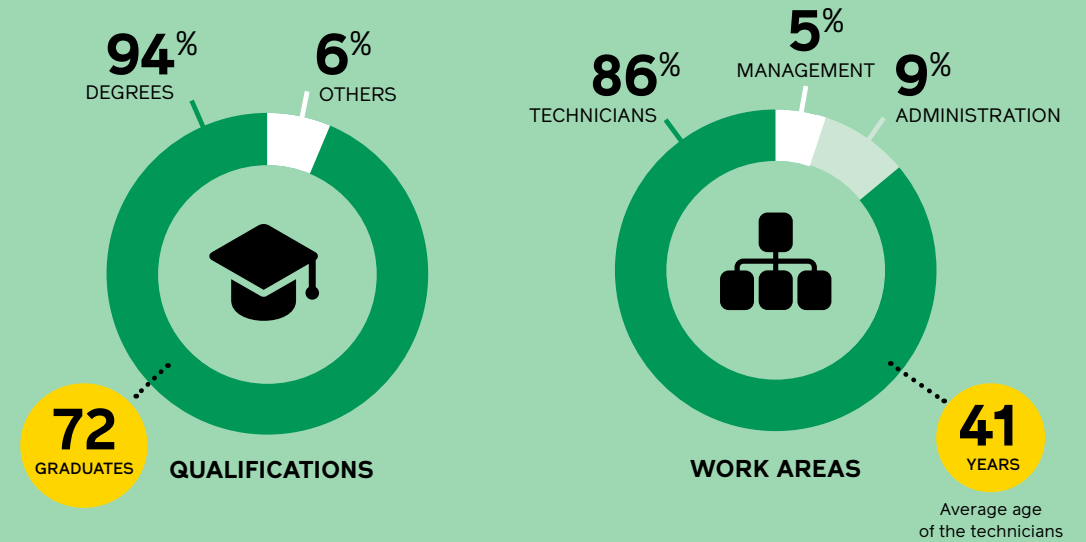
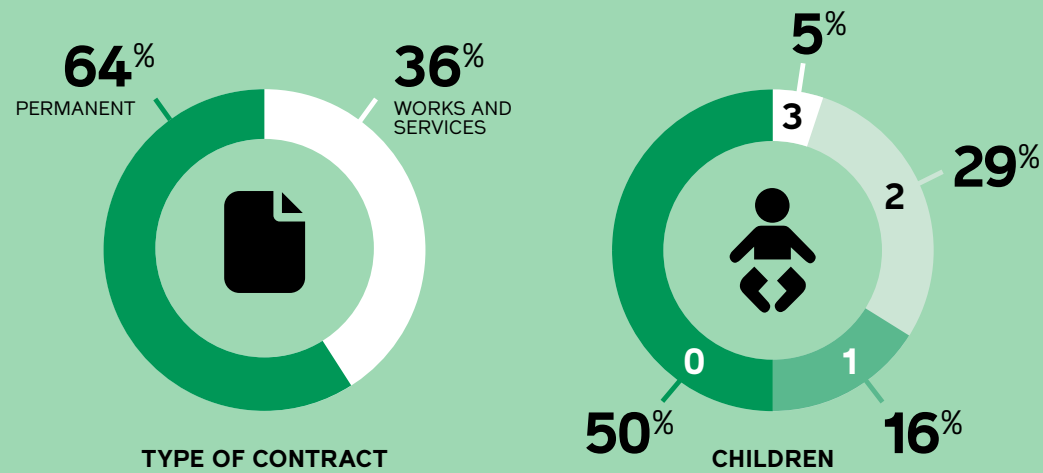
Thank you.

→ 196, Parc d'Escullis. → 164, Collserola. → 150, Besòs Environmental Recovery.

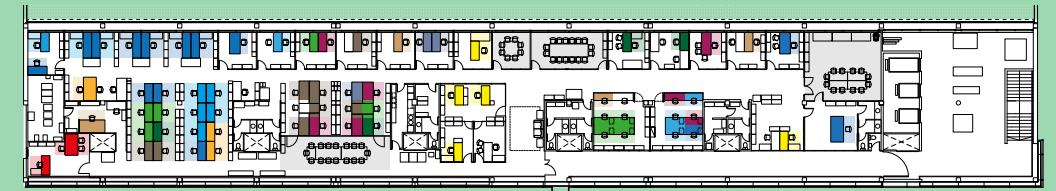




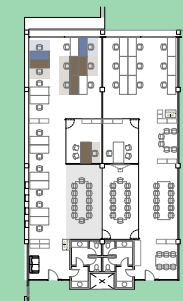
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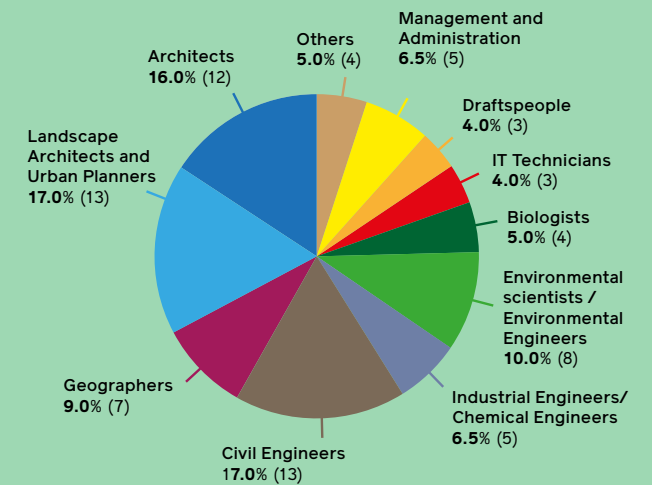
BARCELONA REGIONAL OFFICES



Top floor



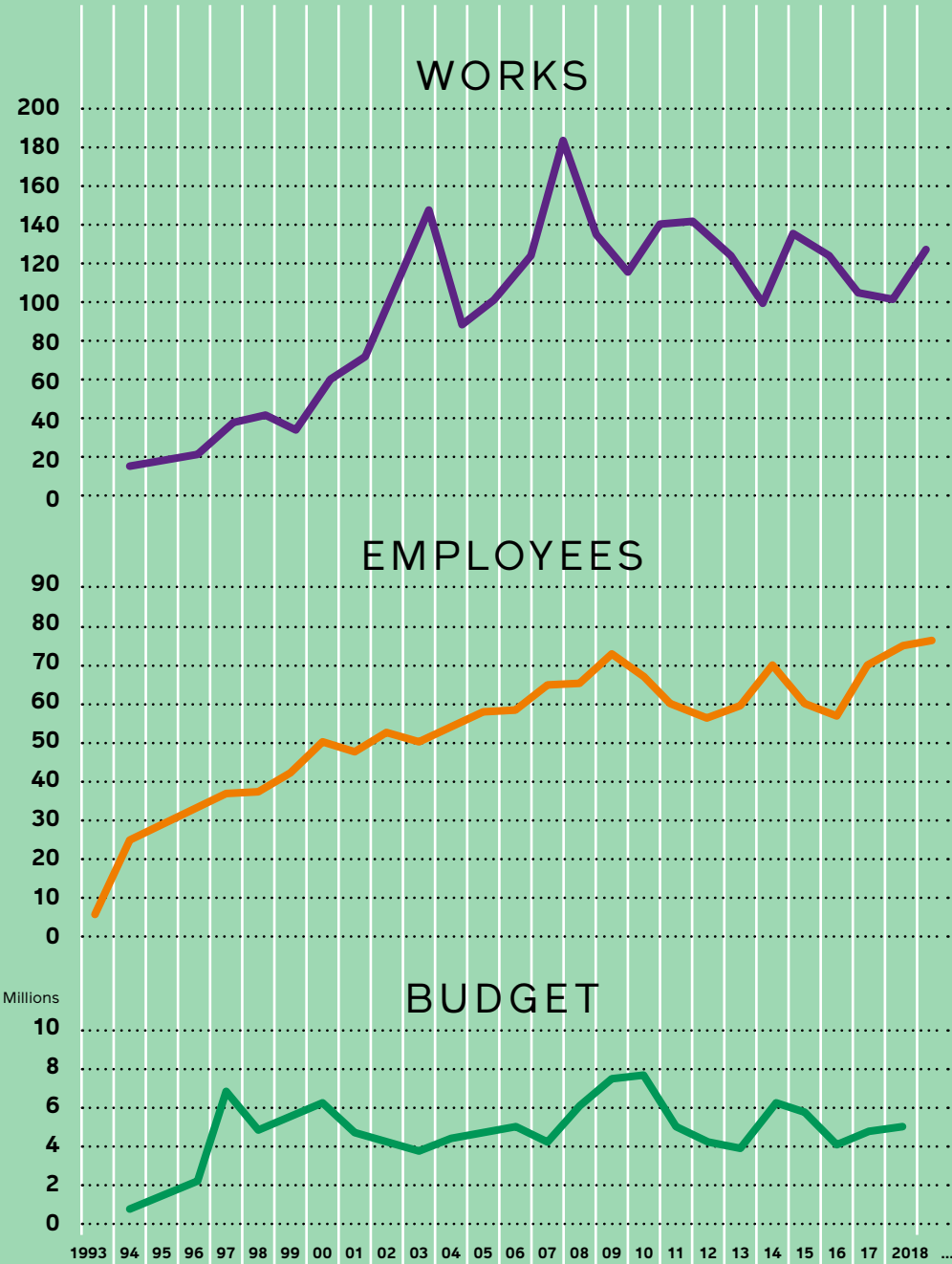
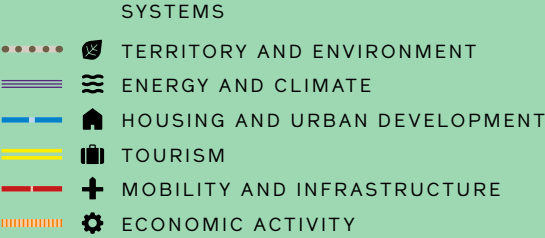
Bottom floor

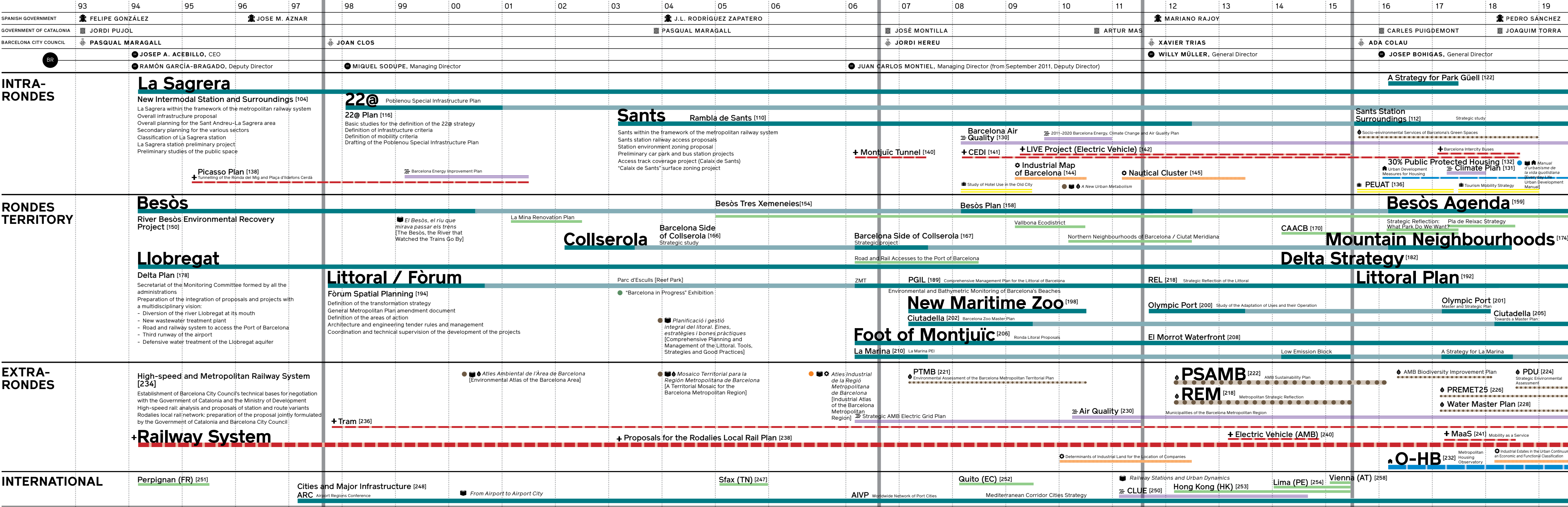


# TIMELINE

The 2,365 works that Barcelona Regional has developed in the past 25 years defy any attempt to classify them into discrete categories. This is why we have opted to select a hundred and sort them by geographic area with the aim of helping to pinpoint their location, using the Rondes (Ring roads) as the reference point. Accordingly, we can identify Intra-Rondes, Rondes Territory, Extra-Rondes and International projects.

We have presented them within the framework of this timeline to provide an overview and to explain the permanence of many of the projects over the years.







# WORKS

**INTRA-RONDES: LA SAGRERA**, New Intermodal Station and Surroundings. **SANTS**, Rambla de Sants; Strategic Study of the Surroundings of Sants Station. **BCN 22@**, 22@ Plan; Poblenou Special Infrastructure Plan. **PARK GÜELL**, Strategic Proposal for Park Güell. **SYSTEMS, ENVIRONMENT**, Socio-environmental Services of Barcelona's Green Spaces; Publication *A New Urban Metabolism*. **ENERGY AND CLIMATE**, Barcelona Energy Improvement Plan; 2011-2020 Barcelona Energy, Climate Change and Air Quality Plan; Barcelona Air Quality; Climate Plan. **HOUSING AND URBAN DEVELOPMENT**, Urban Development Measures for Housing; Publication *Manual d'urbanisme de la vida quotidiana* [Everyday Life Urban Development Manual]; **TOURISM**, Study of Hotel Use in the Old City; Tourism Mobility Strategy; Special Urban Plan for Tourist Accommodation (PEUAT). **MOBILITY AND INFRASTRUCTURE**, Picasso Plan. Tunnelling of the Ronda del Mig and Plaça d'Ildefons Cerdà; Montjuïc Tunnel Proposal; Special Infrastructure Development Committee (CEDI); LIVE Project (Electric Vehicle); Barcelona Intercity Terminal Zoning Proposal. **ECONOMIC ACTIVITY**, Industrial Map of Barcelona; Barcelona Nautical Cluster... **RONDES TERRITORY: BESÒS**, River Besòs Environmental Recovery Project; Publication *El Besòs, el riu que mirava passar els trens* [The Besòs, the River that Watched the Trains Go By]; La Mina Renovation Plan; Besòs Tres Xemeneies Area; Vallbona Ecodistrict; Besòs Plan; Besòs Agenda; Strategic Proposal for Pla de Reixac. **COLLSEROLA**, Strategic Study of the Barcelona Side of Collserola; Strategic Project for the Barcelona Side of Collserola; Planning Criteria for the Northern Neighbourhoods of Barcelona / Ciutat Meridiana; New Barcelona Animal Shelter; Strategic Reflection: What Park Do We Want for the Future?; Mountain Neighbourhoods. **LLOBREGAT**, Delta Plan; Road and Rail Accesses to the Port of Barcelona; Delta Strategy. **LITTORAL**, New Marine/Land Zone Delimitation; Publication *Planificació i gestió integral del litoral. Eines, estratègies i bones pràctiques* [Comprehensive Planning and Management of the Littoral. Tools, Strategies and Good Practices]; Environmental and Bathymetric Monitoring of Barcelona's Beaches; Comprehensive Management Plan for the Littoral of Barcelona (PGIL); Strategic Reflection of the Littoral (REL); Littoral Plan; FÒRUM, Fòrum Spatial Planning, Parc d'Esculls [Reef Park], "Barcelona in Progress" Exhibition; NEW BARCELONA MARITIME ZOO; OLYMPIC PORT, Study of the Adaptation of Uses and their Operation,

Master and Strategic Plan; CIUTADELLA, Barcelona Zoo Master Plan, Towards a Master Plan for Ciutadella Park; FOOT OF MONTJUÏC, Proposals for the Ronda Litoral at the Foot of Montjuïc, El Morrot Waterfront; LA MARINA, La Marina Special Infrastructure Plan, Low Emission Block, A Strategy for La Marina... **EXTRA-RONDES: TERRITORY AND ENVIRONMENT**, Metropolitan Strategic Reflection (REM); Publication *Atles Ambiental de l'Àrea de Barcelona* [Environmental Atlas of the Barcelona Area]; Publication *Mosaico Territorial para la Región Metropolitana de Barcelona* [A Territorial Mosaic for the Barcelona Metropolitan Region]; Environmental Assessment of the Barcelona Metropolitan Territorial Plan (PTMB); Barcelona Metropolitan Area Sustainability Plan (PSAMB); AMB Park Network Biodiversity Improvement Plan; Strategic Environmental Assessment of the Metropolitan Urban Development Master Plan (PDU); 2019-2025 Metropolitan Programme for Municipal Waste Prevention and Resource Management (PREMET25); Barcelona Metropolitan Area Water Cycle Master Plan. **ENERGY AND CLIMATE**, Strategic AMB Electric Grid Plan; Air Quality (RMB). **HOUSING**, Projects within the Framework of the Barcelona Metropolitan Housing Observatory. **MOBILITY AND INFRASTRUCTURE**, High-speed and Metropolitan Railway System; Tram; Proposals for the Rodalies Local Rail Plan; Electric Vehicle (AMB); Mobility as a Service (MaaS). **ECONOMIC ACTIVITY**, Publication *Atles Industrial de la Regió Metropolitana de Barcelona* [Industrial Atlas of the Barcelona Metropolitan Region]; Determinants of Industrial Land for the Location of Companies; Industrial Estates in the Urban Continuum: an Economic and Functional Classification... **INTERNATIONAL: CITIES AND MAJOR INFRASTRUCTURE**, Publication *From Airport to Airport City*; Mediterranean Corridor Cities Strategy; Publication *Railway Stations and Urban Dynamics. High Speed Issues*. **CLUE**, Climate Neutral Urban Districts in Europe. **PERPIGNAN** (France). **QUITO** (Ecuador). **HONG KONG** (China), 2014 Hong Kong Biennale; Publication *Hong Kong-Barcelona Urban Exchange. A Dual Approach to Waterfront Regeneration*. **LIMA** (Peru), New Costa Verde Area Strategic Plan; 2035 General Mobility, Accessibility and Transport Plan for Lima-Cal-lao; Pan American Village, Lima 2019. **VIENNA** (Austria), Conceptual Proposal to Redesign the Vienna Ringstrasse...

2,365  
WORKS

1993

2018



# Fruits



**JUAN CARLOS MONTIEL DÍEZ**

Managing Director (2006–2011) and Deputy General Director (2011–...)

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**‘BR is an instrument to be used by its partners. This condition, and the complexity inherent to urban phenomena, forces it to reformulate its orders and commissions, reframing them, necessarily distancing itself from the traditional relationship between those who request services and those who provide them. And it adapts its work methods and its teams to act in consequence’**

‘Ye shall know them by their fruits’. The Bible says *fruits*, but the quote could just as well apply to analyses, strategies, agendas, studies, reports, plans, programmes, jobs... Works, in short. Up to a total of 2,365 entries in annual reports and archives. This figure is cited solely to illustrate the difficulty of making a selection and presenting it in a book like this one. The act of choosing without betraying—and ordering without confusing—a collection of them as a sample is doomed to dissatisfaction. But the commitment to celebrate our anniversary has forced us to do so. We have assumed the risks, but we are also consoled by the fact that, at the very least, it may engender enriching reflections and debates.

We have made the selection now, in the present, of course, with the knowledge, concerns and perspective that this provides. And we have also assumed the prejudices that are often caused by both our present interpretations and our memory of the past.

Their classification could constitute a doctoral thesis in itself. Many of the possible options, from the chronological order, with the peace of mind that the linearity of time provides, to a matrix structure of systemic vectors cross-referenced with territorial scales, perhaps even adding work procedures or methodologies, go beyond the simple goals of this publication. For this reason, we have opted for a way of grouping the works that facilitates their location, and we trust that the brief texts that accompany them in conjunction with the perspective of each reader will be sufficient for our purposes.

We cannot hope to aspire, therefore, to an impossible level of scientifically representative objectivity for the fruits of a labour in which 215 people have participated over the last 25 years. We will be satisfied with being able to explain them. Because explaining them may be the most honest attitude; not trying to convince anybody of anything, not showing off, not justifying our actions. Simply showing some of these works with a brief summary of how they were carried out. Or, rather, how we carry them out. Because our aim is to continue in the thick of things.

As we have noted in the timeline, the selected works are sorted by geographic area, with the Rondes (Ring roads) as the reference point. This reference point is as clear and precise in its identification as it is

→ 193, Fòrum.  
→ 104, La Sagrera.  
→ 114, 22@.

→ 234, High-Speed Rail and Metropolitan Railway System.  
→ 104, Sagrera.

open in its interpretation. Accordingly, we can identify Intra-Rondes, Rondes Territory<sup>1</sup>, Extra-Rondes and International works. But even with this geographically limited criterion, some of them could equally well be placed in a different section. It depends on your perspective.

At the beginning of the last decade La Sagrera ↗, the 22@ district ↗ and the Fòrum ↗ were referred to, jointly and coherently, as the *Eastern Triangle*. Jointly because they were projects located in neighbouring, almost contiguous areas and coherently because they shared the same goal: recentralise the east of the city. That is, provide it with facilities on a par with the rest of the central areas. But keeping in mind the specific problems of each one of these territories. Sewing up the historic gap that the railway infrastructure had created between Sant Andreu and Sant Martí with La Sagrera station as the key element; renovating the obsolete industrial territory of Poblenou, but maintaining its historical nature as a production area in the 22@ district; or enriching an area that was previously solely residential with new uses and internalising environmental and energy infrastructure, making it compatible with the zone's new status as a hub, in the case of the Fòrum.

In this publication they are separate. Not because we are not true to our own convictions, but because as they were developed at different rates and still have different journeys ahead of them, they are already consolidated from the perspective of the strategies that created them. In this way, the Fòrum area is presented within the framework of the littoral, the recovery of which was completed within the municipal limits of the city, but without renouncing its role as the border with the intensely metropolitan Besòs territory. It is an example of the different role that each change in perspective, each historic moment, contributes.

This example may also serve to illustrate a significant aspect of our activity: the different relationship with the future followed by some of the projects that Barcelona Regional has conceived and fostered, or in which it has actively participated.

The transformation of La Sagrera ↗, within the framework of the renovation of Barcelona's railway system ↗ for the incorporation of high-speed rail, was, since its creation, one of the core projects of our agency.

1. In the two titles of this volume it is used indistinctly the terms 'Ring Roads Territory' or 'Rondes Territory' (using the original name of the highway in Catalan) to refer to the stretch of territory surrounding the Barcelona Ring roads.

→ 193, Fòrum.  
→ 114, 22@.  
→ 118, 22@ PEI.

This long project allowed Barcelona City Council and Barcelona Metropolitan Area to defend theses based on which they established agreements with the Government of Catalonia and the Ministry of Development to specify the area and the procedure of the urban renewal, in addition to the type, nature and form of the station. The technicians who led this project constituted the backbone upon which BSAV<sup>2</sup>, the company responsible for the technical management of its transformation, was created.

The strategy for the Fòrum ↗ area was conceived at Barcelona Regional, as were the amendment to the PGM necessary to implement it, the management of the tenders to award the thirty or so projects of which it consisted, the technical coordination of their development in accordance with the initially defined strategy and the supervision of the work that materialised it. In this case, a dozen BR technicians were hired over a period of three years by the company Infraestructures de Llevant, S.A, (the current BIMSA), which was established to execute the work that transformed that territory. Once the work was completed and the objective reached, they returned home to BR.

In the case of the 22@ district ↗, the plan was based on an amendment to the PGM (1999-2000) drafted by the Urban Development Technical Services of Barcelona City Council under the supervision of Josep A. Acebillo, chief architect and CEO of Barcelona Regional, and of Ramon García-Bragado, the then Head of Urban Development, and until 1998 the Deputy Director of BR. This harmonious relationship enables us to understand why it was Barcelona Regional that drafted the Poblenou Special Infrastructure Plan ↗, not only due to its technical complexity, but also because of the innovative dimension that it incorporated with regard to the management of the subsoil, inseparable from the roll-out and the management system of the urban development plan, and essential for the implementation of strategic infrastructure for its consolidation.

These cases represent a diverse sample of a characteristic common to our work: ongoing involvement that has adapted to different scales, contents and contexts in order to guarantee coherence and sense in processes that are usually long and, very often, undertaken in

2. BSAV, SA (Barcelona La Sagrera Alta Velocitat) is co-owned by Barcelona City Council, the Government of Catalonia and the Ministry of Development (through ADIF and RENFE).

hazardous situations. To support this capacity for permanence and adaptation it is essential for another characteristic to preside over our activity: the legitimacy and viability of the management and implementation of what we propose. Exercising the necessary questioning of the initial theses, adjusting them in accordance with contextual variations and technical innovations arising throughout their development. Or also, it should be said, to rectify mistakes or deficits in any of our premises or proposals. Always aiming to distance ourselves from both a level of disciplinary bravura that could potentially lead to heightened egos, which would serve no purpose, and coarse pragmatism, disguised in many cases as the inability to tackle the complexity of urban phenomena.

A fine recent example of the permanence of this way of proceeding, which considers project and instrument to be inseparable, is the O-HB (Metropolitan Housing Observatory). It is a commission formulated in 2016 by the Housing Area of Barcelona City Council that Barcelona Regional shaped and structured until, once it was under way, it became independent from the technical team that fostered it. In this case, as is now the tradition, the treatment of a phenomenon like that of housing from a perspective new to BR is not undertaken in fits and starts, rather it is incorporated into our DNA as another variable within the complexity indicated above.

The O-HB ↗ may serve to end a temporary digression that started during the recovery of the river Besòs. It was one of the first projects—and construction jobs—undertaken by Barcelona Regional. During the Olympic transformation the technical team upon which BR was established was not required to specifically tackle any large-scale environmental works, given that at that time, environmental considerations were not one of the basic parameters that had to be dealt with.<sup>3</sup> But in the case of the river it had to be the base upon which the project rested. For this reason, it was important to include the biologist

Sito Alarcón in its management. This, although very important, is not the crux of what we are explaining. What is truly important is that the presence of this new vector transcends the Besòs project and is incorporated into the structure of the BR team and, to continue with the image, its DNA.

3. This limitation is illustrated by the fact that, at that time, environmental studies were officially part of the biology curriculum. It was only in the early 2000s when the environment became a university subject in its own right.

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**'A dozen technicians were hired over a period of three years by the company Infraestructures de Llevant, S.A. (the current BIMSA), which was established to execute the work that transformed that territory. Once the work was completed and the objective reached, they returned home to BR'**

It is a characteristic that helps us understand another to which we have previously alluded. At the start the team was somewhat restricted by the limited needs that usually come with beginnings. But its progressive expansion did not respond to theoretical premises or imported organisational charts. It was the result of successive technical rearmaments to face the complexity of the new problems it had to solve. This aspect is significant, given that the successive technical posts it created were always linked to specific, and partial, objectives. That is, the work of the people in these positions, which was new to Barcelona Regional, had to be developed within a broader disciplinary framework. It is what we could call the *contagion effect*, which has a double meaning: from the old to the new, and vice versa. This needs a specific culture to be grown to facilitate the multidisciplinary necessary to respond to the aforementioned level of complexity. And to be efficient it must form part of the

natural practice of the teams. But constant nourishment is required to achieve this quality of multidisciplinary work. It requires effort, in addition to conflict, to be able to put yourself in someone else's shoes, take a fresh look and be aware that your perspective is not the only one and that solutions are not immutable. It is osmosis, but osmosis of a very precise magnitude. A very small team would be insufficient; an excessively large one would be so unwieldy as to be useless.

It is important to also highlight the relationship between the formulation of the commissions and the procedures and instruments applied to develop them. Barcelona Regional, in its condition as an Agency—agent—understood to be “one that acts on behalf of another”, receives requests formulated in very different ways: specific requests with precise parameters, specific requests with vague parameters and vague requests with specific objectives. This is not wordplay; it is our natural environment. And it is not the symptom of any deficiency on the part of others, but the best way of attending needs when they are little more than indications. Or when they explode. But, almost always, when time is a scarce resource. For this reason, BR is an instrument to be used by

the partners who own it, allowing us, and in many cases forcing us, to reformulate the requests and commissions we receive. To frame them within broader, and simultaneously narrower, contexts, necessarily distancing ourselves from the traditional relationship between those who request services and those who provide them. A relationship that becomes more productive as the level of complicity with our interlocutors, whether they are politicians, public administrators or simple technicians, increases. This sometimes means that certain projects do not directly respond to external requests, while they are, on the contrary, the product of reflections linked to other projects or to disciplinary logic. Because we understand that our mission is to offer the best service to the governments that support us, meeting needs that are not met due the pressure of their day-to-day operations or due to the inadequacy of their structures to deal with certain problems that, although they are situational, are still important.

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**‘The presence of each new vector transcends the project to which it belongs, becoming a structural part of BR’s DNA’**

It is not unusual in this type of relationship for the extent of the works—or of their commitment—to require a new budget, given that sometimes the original aim is transcended by the importance of considerations that emerge in the course of their development. It is not strange, for example, for a report issued in response to an administration’s apparently routine informative study to engender certain reflections that end up forming the basis of new theses for a territory. This way of working, making extent compatible with specificity, enables the accumulation

of knowledge that can be put to great use to formulate a joint vision that does not diminish relations between its constituent parts or the effects on the others brought about by a change to any of them. It is necessary to seriously consider this systemic nature of urban reality, which transcends materiality, and adapt work methods to be able to act in consequence. And with coherence.

Extent in the conceptual and physical sense, without administrative limits, which, although they are essential for management, can never take the place of analysis, proposals or planning. The functional logic of certain elements that configure this systemic nature contin-

uously forces us to exceed the aforementioned limits. Few infrastructure elements can be limited to the territory of a single municipality. They are usually metropolitan and, very often, regional (in the broadest sense of the term). Changing the frequency of a local train affects the configuration of its system, as well as the relationships between local and regional trains and between the infrastructure that supports them and the infrastructure used in the Mediterranean corridor. Another possible example, without entering into obvious details, is the scale, at least metropolitan, necessary to be able to take measures to improve air quality or prevent critical pollution episodes.

The progressive changes made over the years were related to both the profiles of the projects and to the instruments with which they were carried out. Barcelona Regional was constituted with a subtitle, *Metropolitan Urban Development and Infrastructure Agency*, which was adopted to highlight the importance of the copulative nature of the whole, the inseparability of the two concepts. But it was not a question of adding as many *ands* as new vectors were being incorporated (and Environment, and Urban Strategy, and... and...), which is why it seemed reasonable to replace it with *Urban Development Agency*. But is it a different agency? Is it a different BR? If this is the case, it will not be due to a change in its name. I am sure that for many *the past was always better*, the initial, Promethean BR; the BR that grew by expanding complicities; the current BR, still in need of perspective... In any case, in adventures like this one, I think that we can congratulate ourselves for surviving its foundation.

“20 years is nothing” as the old tango says. Barcelona Regional has survived for 25 years. The same number of years as its youngest employee has been alive. A whole life. As we all know, the elasticity of time... I expressed at the start the aim of explaining how we work, simply, without trying to convince anybody of anything, without showing off and without self-justifications. I am not sure whether I have met this objective. Sometimes memory tends to be self-satisfying. In any case, if these pages help anyone to understand a little bit more about what Barcelona Regional is and how it works, the effort will not have been in vain. And having reached this point... we can now move on to something else, as *every day brings new challenges*.



**102 INTRA-RONDES****104 \_\_LA SAGRERA**

104 \_\_\_\_\_NEW INTERMODAL STATION AND SURROUNDINGS

**108 \_\_SANTS**

110 \_\_\_\_\_RAMBLA DE SANTS

112 \_\_\_\_\_STRATEGIC STUDY OF THE SURROUNDINGS OF SANTS STATION

**114 \_\_BCN 22@**

116 \_\_\_\_\_22@ PLAN

118 \_\_\_\_\_POBLENOU SPECIAL INFRASTRUCTURE PLAN

**120 \_\_PARK GÜELL**

122 \_\_\_\_\_STRATEGIC PROPOSAL FOR PARK GÜELL

**124 \_\_SYSTEMS**

126 \_\_\_\_\_ENVIRONMENT

126 \_\_\_\_\_SOCIO-ENVIRONMENTAL SERVICES OF BARCELONA'S GREEN SPACES

127 \_\_\_\_\_PUBLICATION *A NEW URBAN METABOLISM*

128 \_\_\_\_\_ENERGY AND CLIMATE

128 \_\_\_\_\_BARCELONA ENERGY IMPROVEMENT PLAN (PMEB)

129 \_\_\_\_\_2011-2020 BARCELONA ENERGY, CLIMATE CHANGE AND AIR QUALITY PLAN (PECQ)

130 \_\_\_\_\_BARCELONA AIR QUALITY

131 \_\_\_\_\_CLIMATE PLAN

132 \_\_\_\_\_HOUSING AND URBAN DEVELOPMENT

132 \_\_\_\_\_URBAN DEVELOPMENT MEASURES FOR HOUSING

133 \_\_\_\_\_PUBLICATION *MANUAL D'URBANISME DE LA VIDA QUOTIDIANA* [EVERYDAY LIFE URBAN DEVELOPMENT MANUAL]

134 \_\_\_\_\_TOURISM

134 \_\_\_\_\_STUDY OF HOTEL USE IN THE OLD CITY

135 \_\_\_\_\_TOURISM MOBILITY STRATEGY

136 \_\_\_\_\_SPECIAL URBAN PLAN FOR TOURIST ACCOMMODATION (PEUAT)

138 \_\_\_\_\_MOBILITY AND INFRASTRUCTURE

138 \_\_\_\_\_PICASSO PLAN. TUNNELLING OF THE RONDA DEL MIG AND PLAÇA CERDÀ

140 \_\_\_\_\_MONTJUÏC TUNNEL PROPOSAL

141 \_\_\_\_\_SPECIAL INFRASTRUCTURE DEVELOPMENT COMMITTEE (CEDI)

142 \_\_\_\_\_LIVE PROJECT (ELECTRIC VEHICLE)

143 \_\_\_\_\_BARCELONA INTERCITY TERMINAL ZONING PROPOSAL

144 \_\_\_\_\_ECONOMIC ACTIVITY

144 \_\_\_\_\_INDUSTRIAL MAP OF BARCELONA

145 \_\_\_\_\_BARCELONA NAUTICAL CLUSTER

**146 RONDES TERRITORY****148 \_\_BESÒS**

150 \_\_\_\_\_RIVER BESÒS ENVIRONMENTAL RECOVERY PROJECT

152 \_\_\_\_\_PUBLICATION *EL BESÒS, EL RIU QUE MIRAVA PASSAR ELS TRENS* [THE BESÒS, THE RIVER THAT WATCHED THE TRAINS GO BY]

153 \_\_\_\_\_LA MINA RENOVATION PLAN

154 \_\_\_\_\_BESÒS TRES XEMENEIES AREA

156 \_\_\_\_\_VALLBONA ECODISTRICT

158 \_\_\_\_\_BESÒS PLAN

159 \_\_\_\_\_BESÒS AGENDA

162 \_\_\_\_\_STRATEGIC PROPOSAL FOR PLA DE REIXAC

**164 \_\_COLLSEROLA**

166 \_\_\_\_\_STRATEGIC STUDY OF THE BARCELONA SIDE OF COLLSEROLA

167 \_\_\_\_\_STRATEGIC PROJECT FOR THE BARCELONA SIDE OF COLLSEROLA

168 \_\_\_\_\_ZONING CRITERIA OF THE NORTHERN NEIGHBOURHOODS OF BARCELONA / CIUTAT MERIDIANA

170 \_\_\_\_\_NEW BARCELONA ANIMAL SHELTER

172 \_\_\_\_\_STRATEGIC REFLECTION: WHAT PARK DO WE WANT FOR THE FUTURE?

174 \_\_\_\_\_MOUNTAIN NEIGHBOURHOODS

**176 \_\_LLOBREGAT**

178 \_\_\_\_\_DELTA PLAN

180 \_\_\_\_\_ROAD AND RAIL ACCESSES TO THE PORT OF BARCELONA

182 \_\_\_\_\_LLOBREGAT DELTA STRATEGY

**184 \_\_LITTORAL**

186 \_\_\_\_\_NEW ZMT DELIMITATION

187 \_\_\_\_\_PUBLICATION *PLANIFICACIÓ I GESTIÓ INTEGRAL DEL LITORAL*.

\_\_\_\_\_ *EINES, ESTRATÈGIES I BONES PRÀCTIQUES* [COMPREHENSIVE PLANNING AND

MANAGEMENT OF THE LITTORAL. TOOLS, STRATEGIES AND GOOD PRACTICES]

188 \_\_\_\_\_ENVIRONMENTAL AND BATHYMETRIC MONITORING OF BARCELONA'S BEACHES

189 \_\_\_\_\_COMPREHENSIVE MANAGEMENT PLAN FOR THE LITTORAL OF BARCELONA (PGIL)

190 \_\_\_\_\_STRATEGIC REFLECTION OF THE LITTORAL (REL)

192 \_\_\_\_\_LITTORAL PLAN

193 \_\_\_\_\_FÒRUM

194 \_\_\_\_\_PLANNING OF THE FÒRUM TERRITORY

196 \_\_\_\_\_PARC D'ESCUILLS [REEF PARK]

197 \_\_\_\_\_"BARCELONA IN PROGRESS" EXHIBITION

198 \_\_\_\_\_NEW BARCELONA MARITIME ZOO

200 \_\_\_\_\_OLYMPIC PORT

200 \_\_\_\_\_STUDY OF THE ADAPTATION OF USES AND THEIR OPERATION

201 \_\_\_\_\_MASTER AND STRATEGIC PLAN

202 \_\_\_\_\_CIUTADELLA

203 \_\_\_\_\_BARCELONA ZOO MASTER PLAN

205 \_\_\_\_\_TOWARDS A MASTER PLAN FOR CIUTADELLA PARK

206 \_\_\_\_\_FOOT OF MONTJUÏC

206 \_\_\_\_\_PROPOSALS FOR THE RONDA LITORAL AT THE FOOT OF MONTJUÏC

208 \_\_\_\_\_EL MORROT WATERFRONT

210 \_\_\_\_\_LA MARINA

211 \_\_\_\_\_LA MARINA SPECIAL INFRASTRUCTURE PLAN

212 \_\_\_\_\_LOW EMISSION BLOCK

214 \_\_\_\_\_A STRATEGY FOR LA MARINA

**216 EXTRA-RONDES****218 \_\_TERRITORY AND ENVIRONMENT**

218 \_\_\_\_\_METROPOLITAN STRATEGIC REFLECTION (REL)

220 \_\_\_\_\_PUBLICATION *ATLES AMBIENTAL DE L'ÀREA DE BARCELONA* [ENVIRONMENTAL ATLAS OF THE BARCELONA AREA]

220 \_\_\_\_\_PUBLICATION *MOsaico TERRITORIAL PARA LA REGIÓN METROPOLITANA DE BARCELONA* [A TERRITORIAL MOSAIC FOR BARCELONA METROPOLITAN REGION]

221 \_\_\_\_\_ENVIRONMENTAL ASSESSMENT OF THE BARCELONA METROPOLITAN TERRITORIAL PLAN (PTMB)

222 \_\_\_\_\_2014-2020 BARCELONA METROPOLITAN AREA SUSTAINABILITY PLAN (PASMB)

223 \_\_\_\_\_AMB PARK NETWORK BIODIVERSITY IMPROVEMENT PLAN

224 \_\_\_\_\_STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE METROPOLITAN URBAN

DEVELOPMENT MASTER PLAN (PDU)

226 \_\_\_\_\_2019-2025 METROPOLITAN PROGRAMME FOR MUNICIPAL WASTE PREVENTION AND RESOURCE MANAGEMENT (PREMET25)

228 \_\_\_\_\_BARCELONA METROPOLITAN AREA WATER CYCLE MASTER PLAN

**229 \_\_ENERGY AND CLIMATE**

229 \_\_\_\_\_STRATEGIC AMB ELECTRIC GRID PLAN

230 \_\_\_\_\_AIR QUALITY (RMB)

**232 \_\_HOUSING**

232 \_\_\_\_\_PROJECTS WITHIN THE FRAMEWORK OF THE BARCELONA METROPOLITAN HOUSING OBSERVATORY

**234 \_\_MOBILITY AND INFRASTRUCTURE**

234 \_\_\_\_\_HIGH-SPEED AND METROPOLITAN RAILWAY SYSTEM

236 \_\_\_\_\_TRAM

238 \_\_\_\_\_PROPOSALS FOR THE RODALIES LOCAL RAIL PLAN

240 \_\_\_\_\_ELECTRIC VEHICLE (AMB)

241 \_\_\_\_\_MOBILITY AS A SERVICE (MAAS)

**242 \_\_ECONOMIC ACTIVITY**

242 \_\_\_\_\_PUBLICATION *ATLES INDUSTRIAL DE LA REGIÓ METROPOLITANA DE*

*BARCELONA* [INDUSTRIAL ATLAS OF THE BARCELONA METROPOLITAN REGION]

243 \_\_\_\_\_DETERMINANTS OF INDUSTRIAL LAND FOR THE LOCATION OF COMPANIES

244 \_\_\_\_\_INDUSTRIAL ESTATES IN THE URBAN CONTINUUM: AN ECONOMIC AND FUNCTIONAL CLASSIFICATION

**246 INTERNATIONAL****248 \_\_CITIES AND MAJOR INFRASTRUCTURE**

248 \_\_\_\_\_PUBLICATION *FROM AIRPORT TO AIRPORT CITY*

249 \_\_\_\_\_MEDITERRANEAN CORRIDOR CITIES STRATEGY

249 \_\_\_\_\_PUBLICATION *RAILWAY STATIONS AND URBAN DYNAMICS*

250 \_\_\_\_\_CLUE. CLIMATE NEUTRAL URBAN DISTRICTS IN EUROPE

251 \_\_\_\_\_PERPIGNAN (FRANCE)

252 \_\_\_\_\_QUITO (ECUADOR)

253 \_\_\_\_\_HONG KONG (CHINA)

253 \_\_\_\_\_2014 HONG KONG BIENNALE

253 \_\_\_\_\_PUBLICATION *HONG KONG-BARCELONA URBAN EXCHANGE. A DUAL APPROACH TO WATERFRONT REGENERATION*

254 \_\_\_\_\_LIMA (PERU)

255 \_\_\_\_\_NEW COSTA VERDE AREA STRATEGIC PLAN

256 \_\_\_\_\_2035 GENERAL MOBILITY, ACCESSIBILITY AND TRANSPORT PLAN FOR LIMA-CALLAO

257 \_\_\_\_\_PAN AMERICAN VILLAGE, LIMA 2019

258 \_\_\_\_\_VIENNA (AUSTRIA)

258 \_\_\_\_\_CONCEPTUAL PROPOSAL TO REDESIGN THE VIENNA RINGSTRASSE

WORKS

## AREAS

### INTRA-RONDES

LA SAGRERA

SANTS

BCN 22@

PARK GÜELL

### RONDES TERRITORY

**BESÒS**

LA MINA

BESÒS TRES XEMENEIES AREA

VALLBONA ECODISTRICT

BESÒS PLAN

PLA DE REIXAC

**COLLSEROLA**

BARCELONA SIDE OF COLLSEROLA

NORTHERN NEIGHBOURHOODS OF  
BARCELONA

NEW BARCELONA ANIMAL SHELTER  
(CAACB)

**LLOBREGAT**

DELTA PLAN

**LITTORAL**

FÒRUM

NEW BARCELONA MARITIME ZOO

OLYMPIC PORT

CIUTADELLA

FOOT OF MONTJUÏC

LA MARINA

**BESÒS**

PLA DE REIXAC

**COLLSEROLA**

BARCELONA SIDE  
OF COLLSEROLA

CAACB

NORTHERN  
NEIGHBOURHOODS -  
CIUTAT MERIDIANA

VALLBONA  
ECODISTRICT

**LLOBREGAT**

PARK GÜELL

LA SAGRERA

BESÒS  
LA MARINA

SANTS

BCN 22@

ZOO - CIUTADELLA

LA MINA

BESÒS  
TRES XEMENEIES  
AREA

FÒRUM

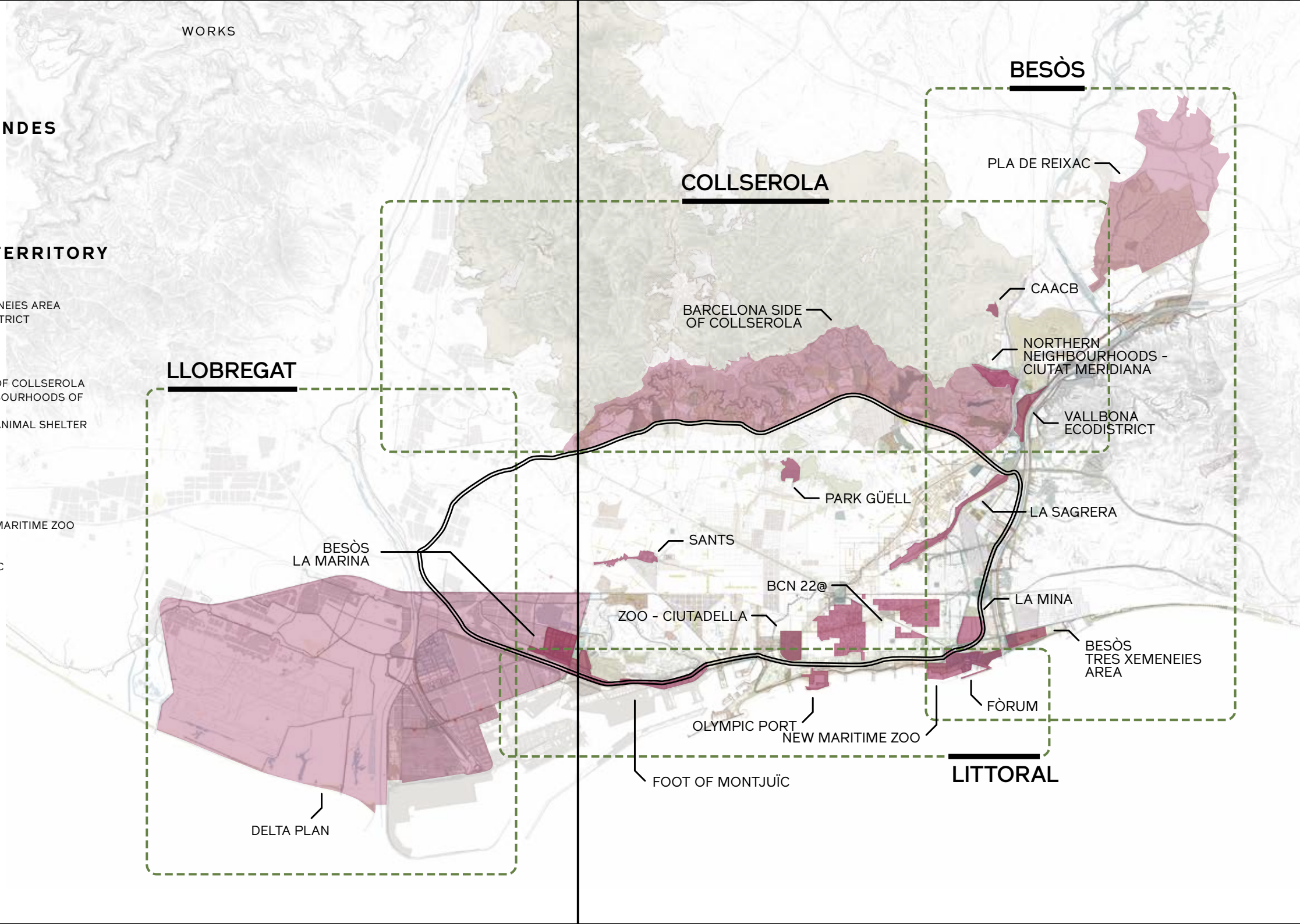
OLYMPIC PORT

NEW MARITIME ZOO

FOOT OF MONTJUÏC

**LITTORAL**

DELTA PLAN

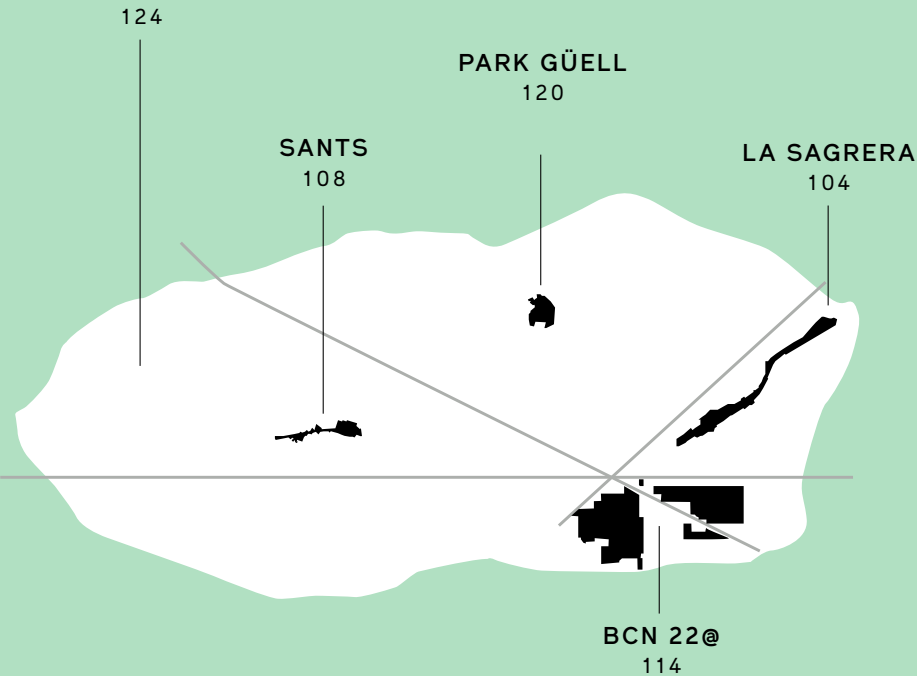


# WORKS

## INTRA-RONDES

### SYSTEMS

- ● ● ● ENVIRONMENT, 126
- ≡ ≡ ≡ ENERGY AND CLIMATE, 128
- — — HOUSING AND URBAN DEVELOPMENT, 132
- ≡ ≡ ≡ TOURISM, 134
- - - - + MOBILITY AND INFRASTRUCTURE, 138
- ||||| ECONOMIC ACTIVITY, 144



Within the referential framework that we have adopted to order the selection of works, in the Intra-Rondes space we have included operations in Sants and La Sagrera. These are two projects linked by the railway substratum that characterises them, and both of which also have stations that can be classed as key for the city. The operational Sants station, which has reached its maximum capacity for tracks and platforms, and La Sagrera, which is currently under construction and has great potential thanks to its intermodality. Although their territorial impacts are quantitatively and qualitatively different, they share a common inter-governmental negotiation and relationship scenario. In addition to conceiving them, Barcelona Regional (BR) has provided the technical rigour required for their municipal strategies and proposals and has actively aided Barcelona City Council in its relations with the rest of the administrations involved.

The 22@ district, once it gained definitive approval in 2000, has always operated within a framework in which Barcelona City Council leads its transformation without having to enter into dialogue with other administrations, although it has formed an intense and ongoing relationship with the property managers and companies that operate there, in which the implementation of the PEI (Special Infrastructure Plan) drafted by BR plays a key role.

Park Güell, one of the city's green spaces and the second biggest tourist attraction in Barcelona after the Sagrada Família, brings together many of the challenges that Barcelona faces as a global city, such as the determination of tourism pressure on the wellbeing of residents and the sustainable management of natural and cultural heritage of incalculable value. Its management is strictly municipal and citizens (locals and visitors) are the ultimate reference point in the studies and proposals that BR has prepared.

In addition to working on projects with specific locations, BR has developed a series of projects that focus on analyses and proposals concerning urban systems, such as the environment, mobility, economic activity and the relationships between climate-energy and housing-tourism. In many of these proposals, BR's initial vague remit took on more weight and became more defined in parallel with the evolution of the various disciplines, public opinion and management problems. In their day they had been considered *new*, but they now form an inalienable part of Barcelona City Council's urban development agenda. This avant-garde attitude and the desire to be innovative are characteristics ingrained in the level of self-demand that BR imposes on itself without any moral connotations, accepting them as simply part of its ordinary responsibility.



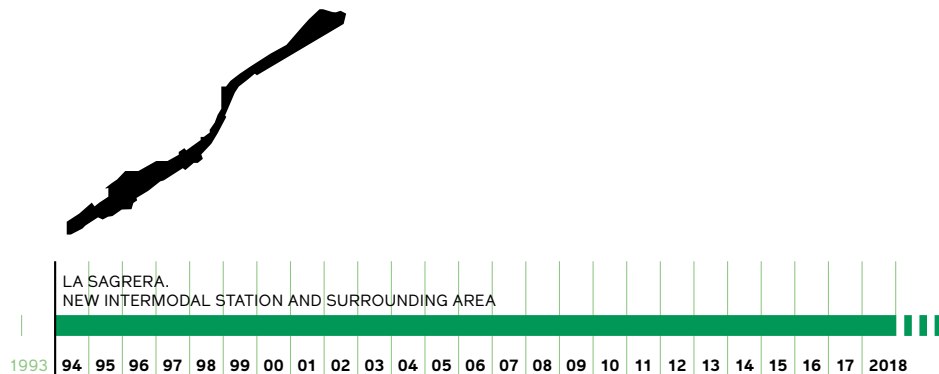
# LA SAGRERA

## NEW INTERMODAL STATION AND SURROUNDING AREA

CLIENTS Ministry of Development, Government of Catalonia and Barcelona City Council  
PERIOD 1994—the present • AREA 164 ha

The strategic La Sagrera project, which started in 1993 in preparation for the future arrival of high-speed rail to Barcelona, consists of the transformation of a 164 ha area arranged along a 3.7 km corridor that was historically occupied by railway infrastructure. This infrastructure has had a major impact on the neighbourhoods of Sant Martí and Sant Andreu, causing a division that has separated them for years. The project, which is still under way and has a clearly metropolitan scope, is being jointly developed by the three competent administrations: the Ministry of Development, the Government of Catalonia and Barcelona City Council.

Along with the 22@ district and the Fòrum area, La Sagrera represents one of the major operations within the renovation strategy implemented for the east of the city. Moreover, in broad strokes and to varying degrees, the project incorporates all the major areas of contemporary urban development: the urban integration of transport infrastructure; public space as an element for social and environmental integration; the implementation of new housing developments and activities in high-density urban spaces, and the economic impact of new infrastructure on the urban environment. Despite its size, location and functions, the La Sagrera project has a metropolitan and regional scope and it also represents the opportunity to provide a response to local historical problems.





La Sagrera project includes the railway infrastructure of more than 80 km of track, the intermodal station, which acts as the hub of this new area of centrality, and an urban regeneration plan for the entire area under transformation. The intermodal station, organised into various levels, is planned to have high-speed lines and lines for local and regional trains. It is designed to have the capacity for 100 million users per year and represents the strategic focus for the development of Barcelona Metropolitan Area's public transport network. The project also contemplates new car parks and a bus station, in addition to a direct connection to the metro lines. La Sagrera intermodal station is designed to be the central point of an area that will be strengthened by the construction of new tertiary buildings adjacent to it.

Specifically, La Sagrera project will keep the tracks running through the subsoil, covering the new sections of track with a new space that, once integrated into the existing urban fabric, will be a linear park some 3.7 km in length and covering more than 40 ha. Moreover, more than 44 ha of new streets and public spaces and 20 ha of new facilities are planned. These spaces will cover the 38 ha of railway infrastructure and unite neighbourhoods that have historically been separated by the train and the area's physical relief.



1. GENERAL LAYOUT OF LA SAGRERA  
GREEN CORRIDOR  
2. LA SAGRERA INTERMODAL STATION.  
CROSS SECTION VIEW

3. VIEW OF LA SAGRERA GREEN CORRIDOR

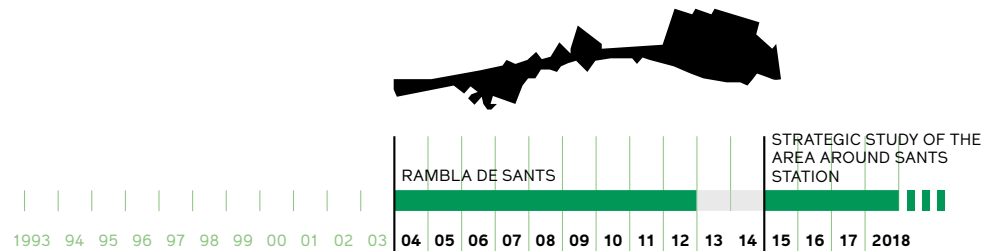


# SANTS

Sants station has a high level of rail intermodality and is one of the main hubs of the metropolitan public transport system. It is also well communicated with public and pedestrian traffic, welcoming more than 40 million passengers per year (according to a 2014 report issued by the *Spanish Railway Observatory (OFE)*) and more than 150,000 users per day. In fact, Sants is Spain's busiest railway station in terms of medium-distance passengers (5,074,329 per year), second busiest in terms of long-distance travellers (8,912,831 per year) and third busiest in terms of local passengers (26,861,631 per year).

Sants station also generated a major impact on its immediate environment, due both to the noise produced by the trains and the degradation and disconnection of the urban environment. Moreover, during the last century the train and metro tracks that run through the area caused a rupture in the urban fabric, dividing it into two parts that were practically separated by a 700 m long barrier, from Carrer de Sants to Riera Blanca.

In this context, the arrival of high-speed rail in Barcelona afforded an opportunity to renovate and transform this area. Accordingly, in 2004 the Sants project started with the aim of increasing the number of users per train and replanning the station's surrounding area from a perspective that prioritises an increased level of urban infrastructure integration, improves accessibility for pedestrians and cyclists and reduces the land allocated for parking in the surrounding road system.





## RAMBLA DE SANTS

### COVERAGE AND URBANISATION OF THE RAILWAY CORRIDOR

CLIENTS Barcelona City Council, ADIF, GISA, BIMSA • PERIOD 2004–2012 • AREA 5.7 ha

The objective of the project to cover and develop the railway corridor at Sants station was twofold: first, to minimise the historic rupture and the noise produced due to the tracks running through the area and second, to generate a new high-quality urban environment, recovering the space occupied by the six RENFE tracks to the north and the land belonging to the public company Transports Metropolitans de Barcelona (TMB) to the south.



The project involved the installation of a prefabricated concrete structure consisting of triangular forms covered by a 700 m gardened avenue on the roof, with transversal walkways to connect the two parts of the neighbourhood and ramps, lifts and escalators to access the roof. The tracks are covered by a lightweight and mainly transparent structure designed to emulate traditional railway bridges. This allows the trains to be seen and the infrastructure to be soundproofed.

The implementation of four underpasses beneath the tracks and a high number of accesses to the roof of the corridor has improved the connectivity of the neighbourhood. The roof has also generated a new urban area, a major gardened walkway ranging from 4 to 14 m above ground level that runs down the sides in the form of a vertical wall or turfed slopes to continue the green space and connect it to the immediate environment.





## STRATEGIC STUDY OF THE AREA SURROUNDING SANTS STATION

CLIENT Barcelona City Council • PERIOD 2015—the present • AREA 10 ha

The strategic study, which is currently in progress, is a master plan that encompasses both the project for the future expansion of Sants station and the improvement of the connection and synergy between the station and the surrounding neighbourhoods. The project is a global interdisciplinary strategic analysis that ranges from mobility to the environment and takes into account sociocultural, commercial and public space dynamics.

Specifically, the strategic study contemplates the updating of the solutions included in the current approach, which started in the late 1990s and culminated in an amendment to the General Metropolitan Plan (PGM) in 2003 and a Special Plan to specify the station's new building in 2005. Among other elements, this established a buildable area on the roof of the station of almost 80,000 m<sup>2</sup>, largely for tertiary use.

1



2



However, 15 years after the drafting of the proposal, the project has still not been executed. The current strategic study takes advantage of the opportunity to review the initial proposal and its planned uses and adjust the associated buildable area in order to bring it up to date and incorporate new paradigms associated with urban transformation.

Even though the tertiary activity associated with the project is not essential for the proper operation of the station's railway activity and, therefore, can be revised, the improvement of the accesses and entrance halls of the station should not be delayed any further. The strategic study, therefore, prioritises a response to the need to enlarge the AVE (high-speed rail) and Rodalies (local rail) vestibules and improve connections between the metro, the bus network and taxis on a semi-basement level directly connected to the AVE vestibule.

3





# BCN 22@

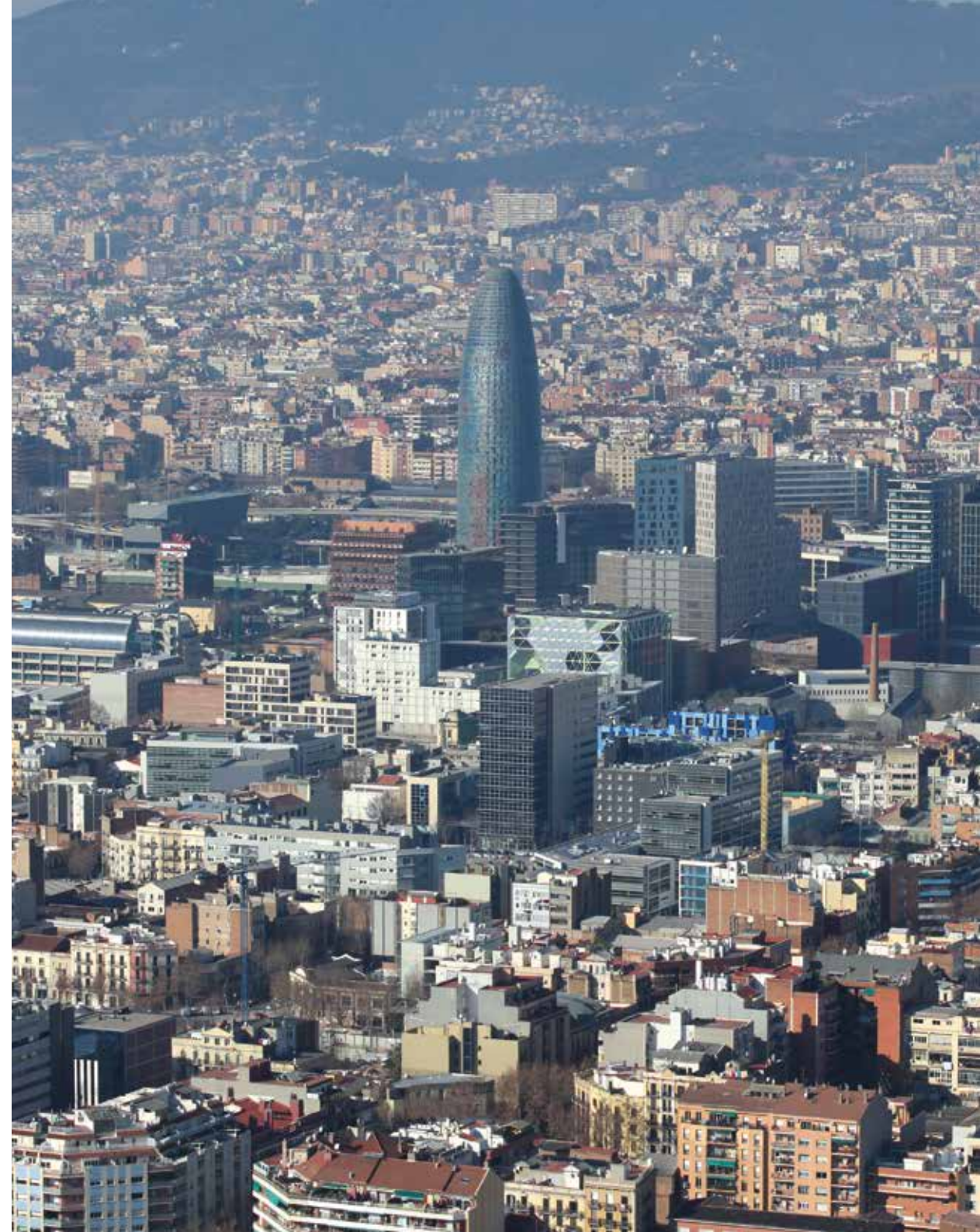
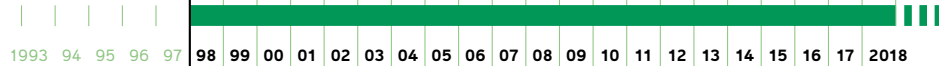
The main objective of the 22@ project, which was proposed in the late 1990s and encompasses 198 ha of urban land (115 blocks of the Eixample district), is the transformation of the traditionally industrial area of the Poblenou neighbourhood into an innovative production area for the development of intensive knowledge and technology activities. The idea of 22@ has always been to maintain the essentially productive nature of the area, overcoming its obsolescence and adapting it to new urban production models. Located very close to the historic centre, adjacent to the seafront recently recovered for public use and near to the new La Sagrera intermodal station, the 22@ district has always played a central role in the strategy formed to renovate the east of the city. It currently hosts a variety of productive activities that generate some 130,000 jobs.

Additionally, the area's change in productive model has made it necessary to adapt the neighbourhood in terms of service, mobility and public space networks. The project has also proposed the need to implement tertiary activities, facilities, public spaces, green spaces and additional housing. Specifically, on top of the area's current 4,600 homes, a further 4,000 are being built, 11 ha of green space have been created and 14 ha have been set aside for facilities.



POBLENOU SPECIAL  
INFRASTRUCTURE PLAN

22@ PLAN





22@ PLAN

CLIENT Barcelona City Council • PERIOD 1998—the present • AREA 198 ha



The 22@ Plan is a long-term plan with a threefold objective: urban revitalisation, economic stimulation and social improvement. In relation to urban revitalisation, the plan proposes the necessary renovation of the urban fabric and the creation of a compact, diverse and balanced environment, where productive spaces harmoniously coexist with social housing, facilities and green spaces designed to improve living and working conditions. As an economic stimulation project, the plan represents a unique opportunity for Poblenou to regain its status as an urban business district. Based on the confluence of science, technology and enterprise, the plan aims to favour coexistence between the non-contaminating and inoffensive productive activities undertaken by the most innovative economic sectors and the city. Finally, as a social revitalisation and urban innovation project, the plan has the aim of favouring synergies between the professionals who work in the area and collaborations between companies, institutions, the public and organisations in the social, educational and cultural spheres.



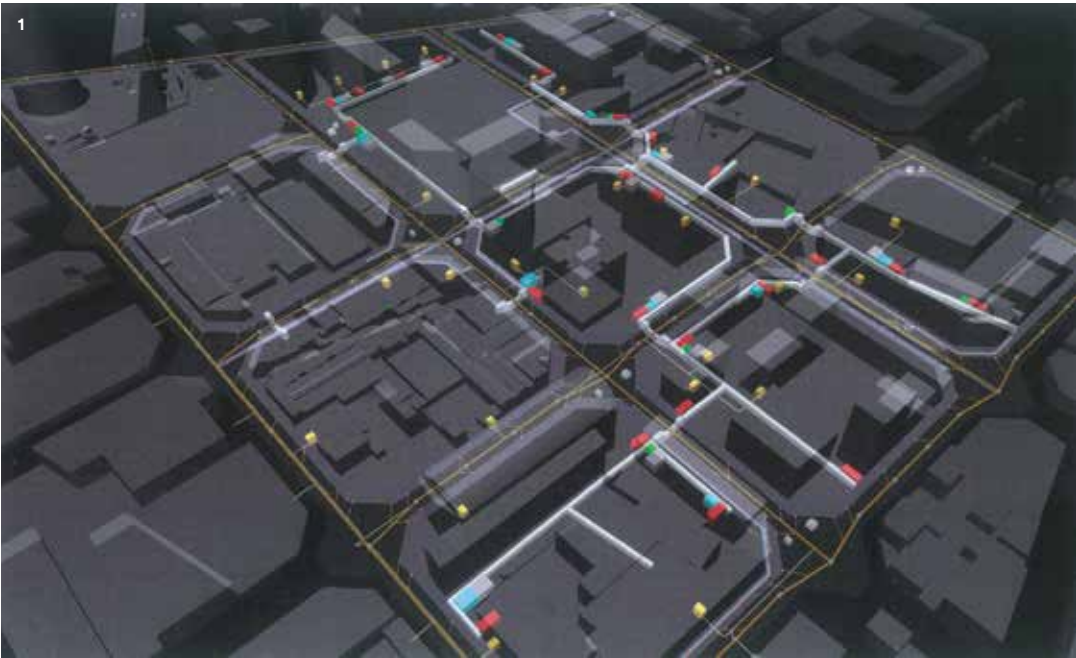
1. ORTHOPHOTO OF 22@  
2-3. HISTORIC IMAGES OF POBLENOU.  
SOURCE: 22@ BCN, SA  
4. MEDIA BUILDING  
5. MEDIAPRO BUILDING  
6. POMPEU FABRA UNIVERSITY. POBLENOU CAMPUS



POBLENOU SPECIAL INFRASTRUCTURE PLAN

CLIENT Barcelona City Council • PERIOD 1998—2000 • AREA 198 ha

The 22@ Special Infrastructure Plan was drafted from 1998 to 2000 with the aim of preparing the area for the productive model change and rolling out a new and extensive technological and productive area over the former industrial zone. In this regard, the plan responds to new demands in terms of ICT systems, design, editorial and cultural production and the audiovisual world and develops the creation of a new system of infrastructure services with sustainability criteria to maximise future efficiency and minimise contamination and energy consumption.



The Poblenou Special Infrastructure Plan incorporates innovative systems for electrical energy by strengthening the grid, for telecommunications by installing a new municipal fibre network, and for centralised district heating and cooling by taking advantage of the residual heat produced by the Besòs incinerator, while favouring the more efficient use of public roads and the subsoil. The plan defended the logic of each system and the integrated implementation of all these networks and accepted that the roll-out needed to be conducted in various phases in accordance with the rate at which the various sectors were capable of transforming. With a planned investment of some €180 million, funded by fees associated with the transformations of the land, utility companies and municipal contributions, the plan also incorporates an innovative regulation to facilitate its deployment.



1. DISTRIBUTION OF THE INFRASTRUCTURE  
2. EVOLUTION OF THE TRANSFORMATION  
OF CARRER DE ROC BORONAT BETWEEN  
AVINGUDA DIAGONAL AND CARRER DE  
SANCHO DE ÀVILA  
3. INFRASTRUCTURE TUNNEL



# PARK GÜELL

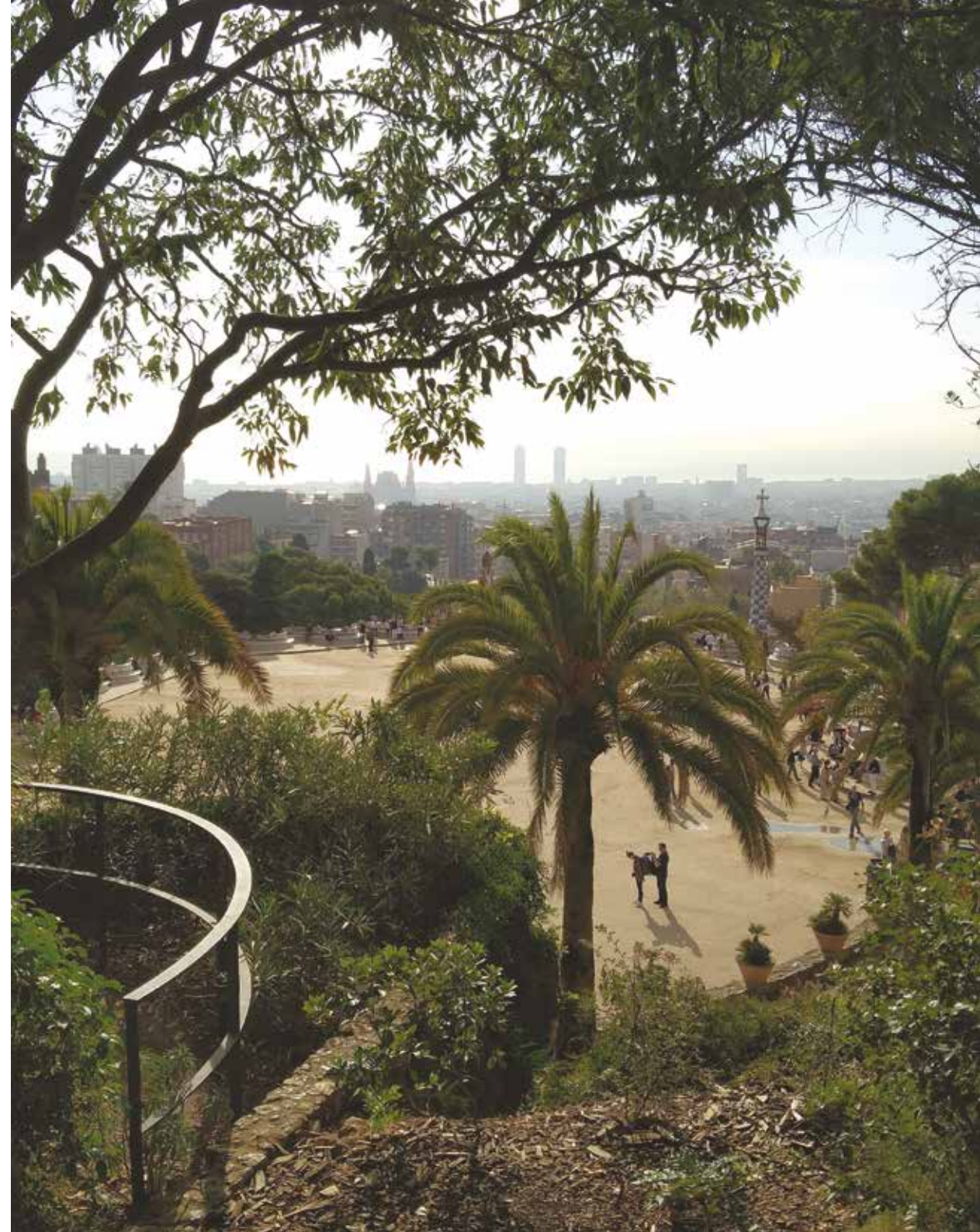
Park Güell is one of the city of Barcelona's largest green areas, a public space with more than 95 years of history and the second most popular attraction in the city (almost nine million visitors per year). The park is a singular location that, in addition to being a World Heritage Site and a unique work of Modernista architecture, is also of great cultural value to Barcelona's citizens. In fact, Park Güell serves as a path to a school, a leisure zone and a place to jog or take a stroll and, therefore, its architectural value cannot be separated from its use as an urban space and a point of connection between neighbourhoods. Its tourism interest cannot be underestimated either.

Three million people per year buy tickets to access the regulated area. This number of visitors is only exceeded by the Sagrada Família. This means that the park and its neighbouring areas are overcrowded with tourists, generating major impacts: park protection and conservation issues, mobility problems, the proliferation of souvenir shops and the simplification of the park and its surroundings brought about by the dynamic of mass consumption.

Accordingly, even though the singularity of the park actually lies in its visitors' breadth of visions and perceptions, it is here, in the diversity of uses and visions, where conflicts are generated and management becomes a complex issue. In this context, a reflection is proposed concerning a new model for Park Güell in order to adapt it to future challenges.



STRATEGIC  
PROPOSAL FOR  
PARK GÜELL

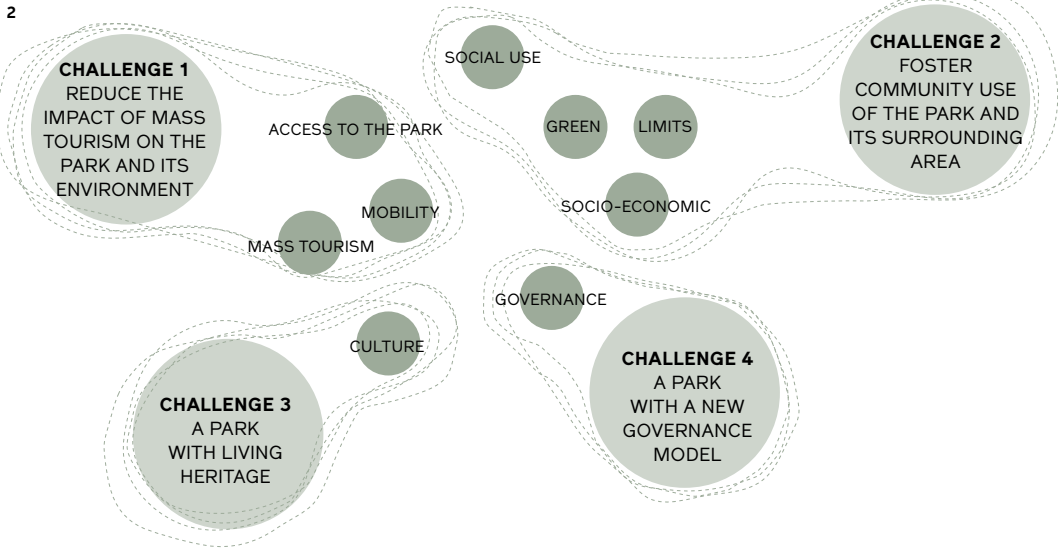
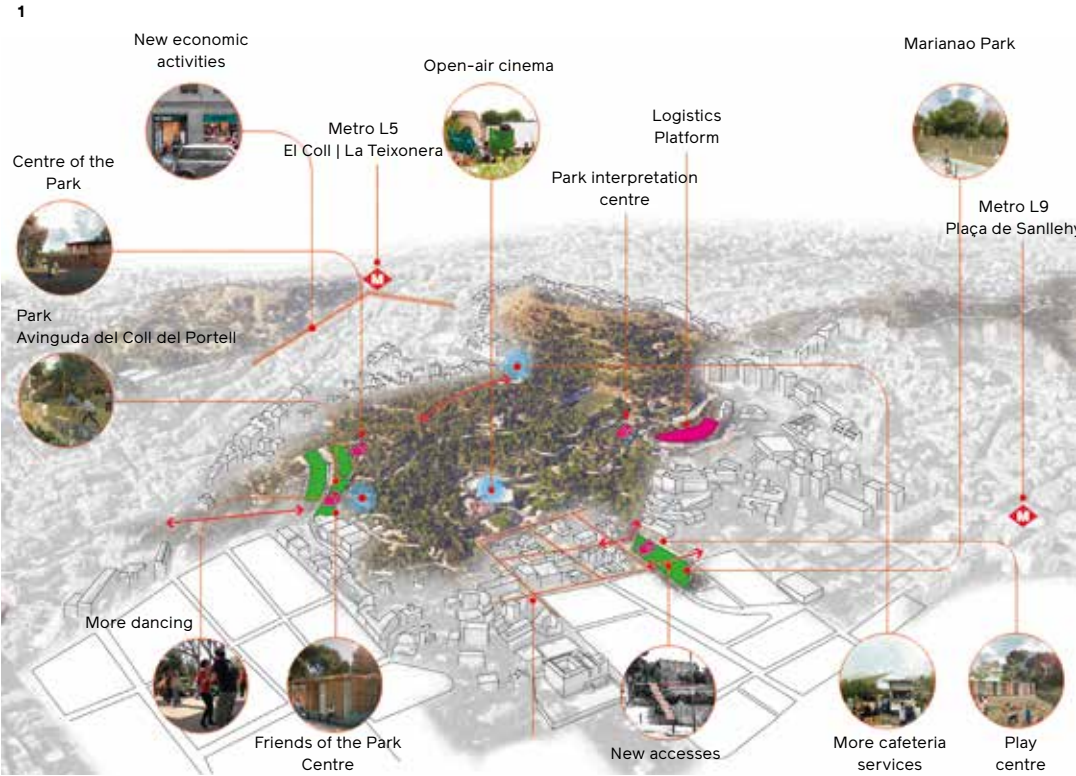




STRATEGIC PROPOSAL FOR PARK GÜELL

CLIENT Barcelona City Council • PERIOD 2016—2017 • AREA 17.2 ha

The main objectives of the strategic proposal for Park Güell, which encompasses the monuments area and the woodland area of the park, are the social return of the park to the city and the preservation of its architectural and natural heritage. In this regard, the document proposes four main challenges: reduce the impacts of tourism overcrowding, promote community use of the park and its surrounding area, keep cultural heritage alive and foster a new governance model. Barcelona has the responsibility of protecting and maintaining the architectural and natural heritage of Park Güell, but it also has a duty to protect the urban quality of its neighbourhoods. In this regard, the strategic proposal is based on the idea that the park is a monumental space, an urban park and a space of collective memories and, therefore, its main objective is to seek a balance between tourism and residential use, without losing its singular nature.



1. FUTURE VISION OF PARK GÜELL  
2. CHALLENGES DIAGRAM  
3. VIEW OF THE PARK ENTRANCE  
4. VIEW OF THE PLAÇA NATURA AND THE HYPOSTYLE HALL



# SYSTEMS

The activities carried out by Barcelona Regional (BR) started, among other projects, with the environmental recovery of the river Besòs and the La Sagrera project, which were described in the 1994 management report as follows: 'Conditioning of the functional use of the Besòs river bed [...] with the systematic analysis of the hydraulic characteristics and determinants of the river, in addition to the possibility of incorporating leisure uses for the river bed, in a manner compatible with its hydraulic uses', and 'Study on the definition of the Sant Andreu-La Sagrera railway system, its intermodality and its urban development repercussions, in addition to all infrastructure aspects related to the railway system, such as the network, the roads connecting it to the local and metropolitan network, the area's drainage system, service tunnels and utilities at the new facilities'.

It is evident that both of them include either latently or explicitly the notion of a traditional or mechanistic system linked to the physical dimension of the infrastructure. Over time, the projects have built on that original idea, progressively covering a growing complexity with new vectors that increasingly influence the quality of life of the public.

Accordingly, the environment and sustainability, with various accents on climate change and energy efficiency, air quality and mobility evolution, are some of these vectors. And they complement each other, rather than adding to each other, forming a hybrid with others like economic activity or housing, with all the complexity that this entails: from urban planning to the relationship with the dynamics arising from the intensity of tourism and its distribution throughout the various neighbourhoods of the city.

This evolution is a consequence both of paying close attention to changes in the various disciplines in which BR operates, and the internal logic of the projects themselves and the increase in their complexity arising from the growing level of public concern.

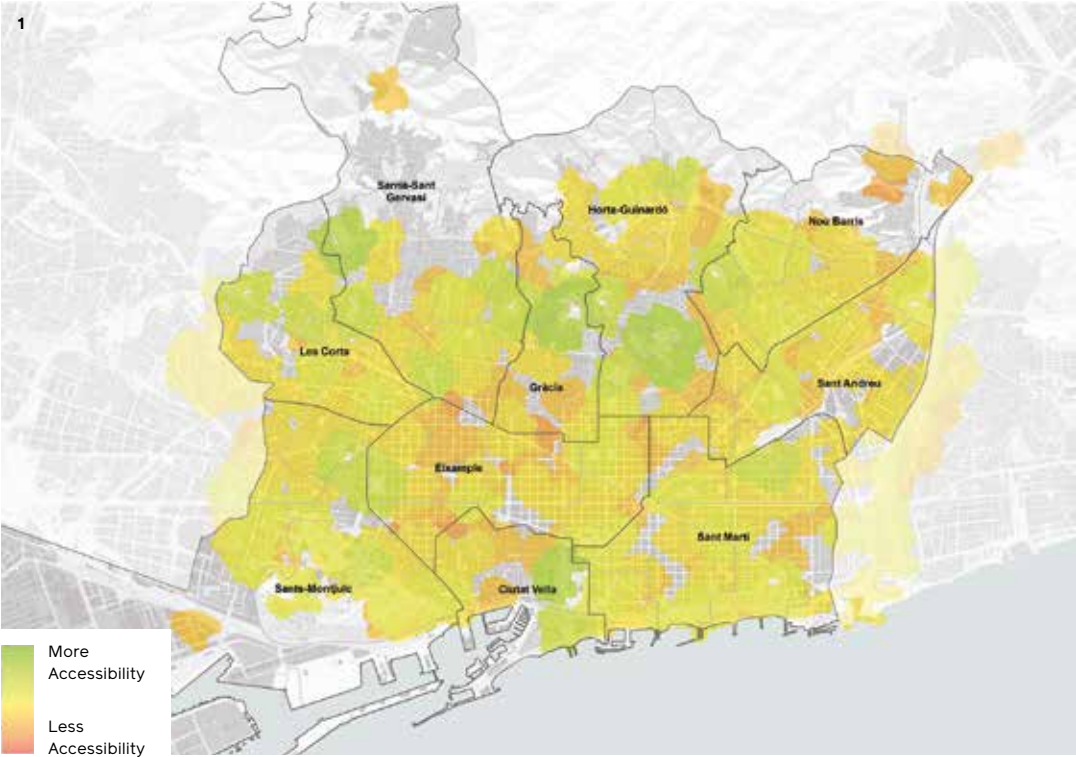




# ENVIRONMENT

## SOCIO-ENVIRONMENTAL SERVICES OF BARCELONA'S GREEN SPACES

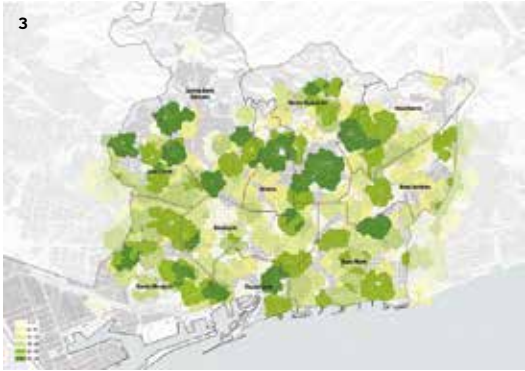
CLIENT Barcelona City Council • PERIOD 2015—2018 • AREA Barcelona, 102 km<sup>2</sup>



The city's strategy in relation to ecology is specified in the 2020 Green Infrastructure and Biodiversity Plan, which focuses on strengthening the socio-environmental services of these spaces. In order to meet this goal, a study was carried out on the socio-environmental services currently offered by the city's green spaces. Its main objective was to assess the socio-environmental services of urban parks, squares and block courtyards in the city of Barcelona with the ultimate aim of producing an instrument for the planning, management and design of urban green spaces.

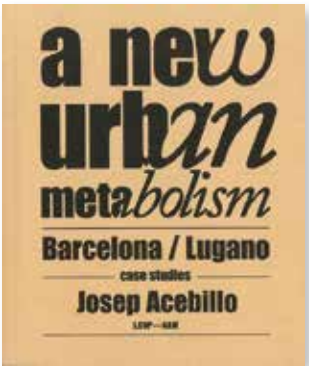


1. AVERAGE ACCESSIBILITY BY NEIGHBOURHOOD  
2. NUMBER OF DEFICIENT SERVICES  
3. NUMBER OF SERVICES PROVIDED



## PUBLICATION A NEW URBAN METABOLISM

CLIENT Barcelona City Council • PERIOD 2012



AUTHOR Josep Acebillo  
PUBLISHER Actar  
EDITION Barcelona, 2012  
ISBN 978-84-9286-147-7  
LANGUAGE English

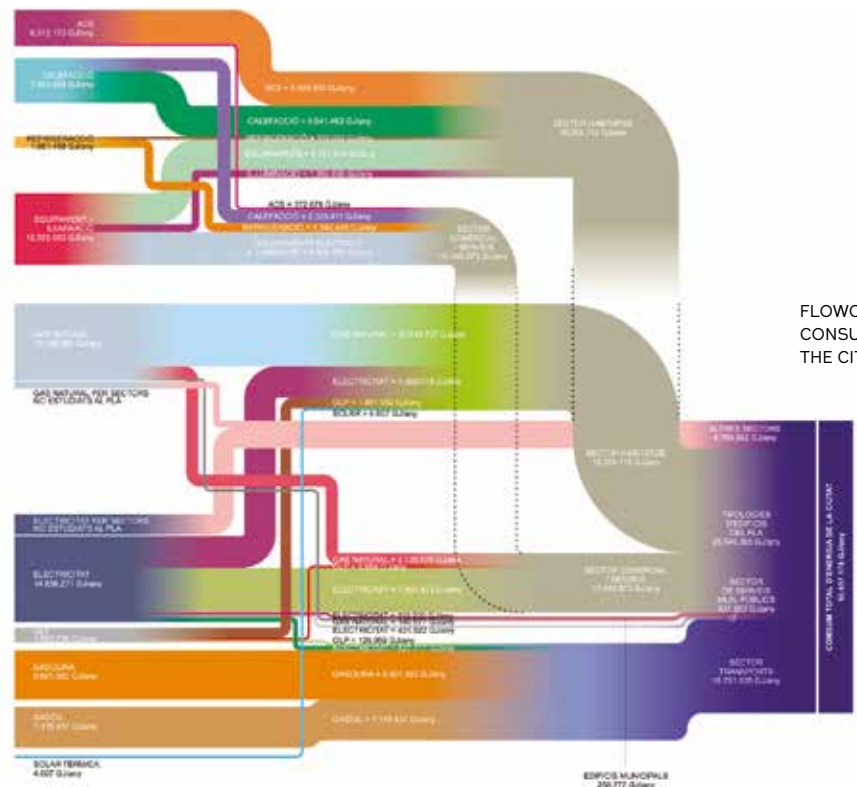
The increasing urbanisation of the planet, borne out by the fact that by the middle of this century 70% of the population will live in cities, means that urban issues will be key to achieving global sustainability. Many of the causes that generate major environmental crises, climate change, for example, are rooted in the metabolic inefficiency of our cities. Improving metabolic efficiency helps to streamline energy within the urban system, as well as enhancing urban competitiveness and reducing the use of resources.

An urban metabolism analysis of Barcelona and Lugano (Switzerland) highlights the efficiency that small and medium-sized cities may have in the new neotertiary context and it could be used as a test to previously assess the functional and ecological consequences of future urban transformations.

ENERGY AND CLIMATE

BARCELONA ENERGY IMPROVEMENT PLAN (PMEB)

CLIENT Barcelona City Council • PERIOD 1999—2001 • AREA Barcelona, 102 km²



FLOWCHART OF THE END CONSUMPTION OF ENERGY IN THE CITY OF BARCELONA IN 1999

At the behest of Barcelona City Council, Barcelona Regional prepared an Energy Improvement Plan for the City of Barcelona (PMEB), which analysed how the city operates as an energy system and an emitter of greenhouse gases. Such plans were not common at the time (1999). In fact, it can be said that it was one of the world's first city energy plans. Based on the diagnosis of the document, a series of actions was prepared, specified into 54 projects, with the aim of improving energy efficiency and the generation of renewable energy, in addition to reducing greenhouse gas emissions. A set of methodologies and IT tools was also developed to assess and monitor the the execution of the plan and its results.

2011-2020 BARCELONA ENERGY, CLIMATE CHANGE  
AND AIR QUALITY PLAN (PECQ)

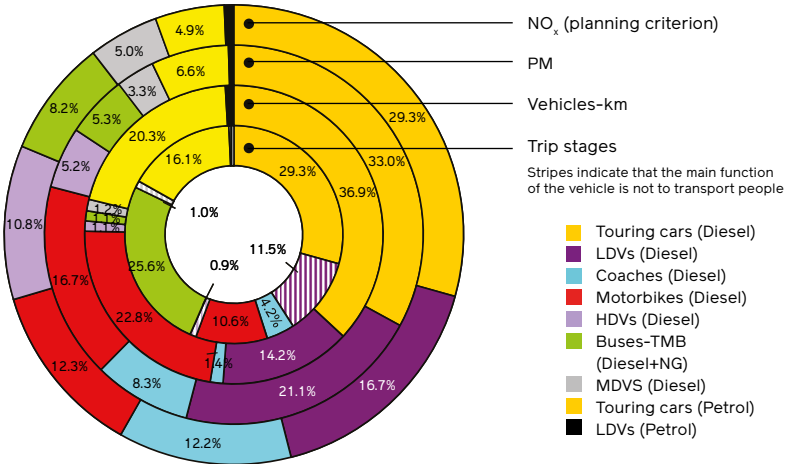
CLIENT Barcelona City Council • PERIOD 2009—2010 • AREA Barcelona, 102 km²



At the end of the validity period of the PMEB, Barcelona City Council decided to strengthen and continue its policy on sustainability with a new plan, the 2011-2020 Barcelona Energy, Climate Change and Air Quality Plan (PECQ). Barcelona Regional was responsible for the coordination of the technical elements of the City Plan of the 2011-2020 PECQ and also undertook the analysis of the section relating to roads, the inventory of emissions in the city as a whole, the modelling of the dispersal of contaminants for the current situation and for a number of different scenarios, in addition to the plan's environmental report. Led by Barcelona City Council, the PECQ equips the public administration with strategic instruments to improve the health of citizens by increasing energy efficiency and reducing emissions of greenhouse gases and other local contaminants like NO<sub>x</sub> and PM<sub>10</sub>.

3

- 1. NO<sub>2</sub> EMISSIONS MAP, 2008
- 2. 2020 PECQ SCENARIO
- 3. PERCEPTUAL DISTRIBUTION OF VEHICULAR MOBILITY, TRIP STAGES, AND EMISSIONS OF NO<sub>x</sub> AND PARTICLES IN THE CITY OF BARCELONA + THE RING ROADS 2008





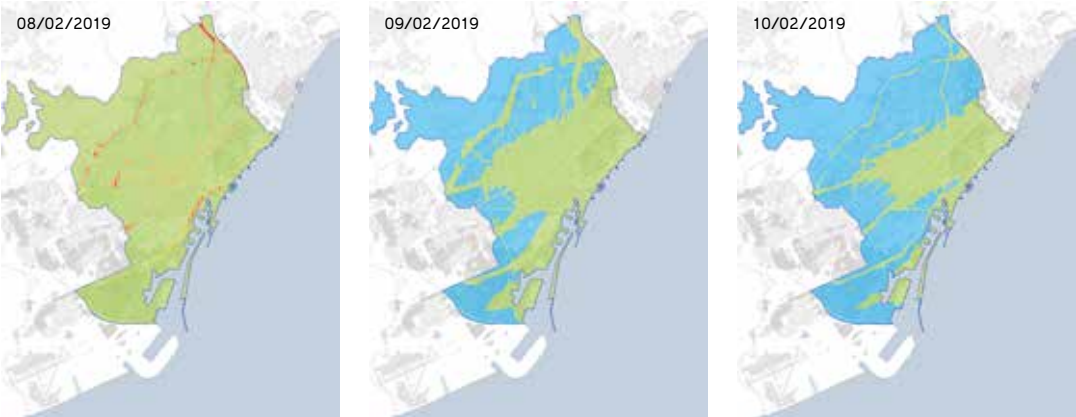
BARCELONA AIR QUALITY

CLIENT Barcelona City Council • PERIOD 2008—2013—the present • AREA Municipality of Barcelona, 102 km²

Barcelona Regional developed Barcelona's first air quality model in 2008 within the framework of the PECQ (2011-2020 Barcelona Energy, Climate Change and Air Quality Plan), which modelled the dispersion of NO<sub>2</sub> and PM<sub>10</sub> contaminants in Barcelona for the 2008 base scenario and the 2015 and 2020 scenarios. Models were also later formulated for 2009, 2010, 2013 and 2017.

Subsequently, Barcelona Regional incorporated other systems that enabled there to be a model to forecast air quality, and since April 2013 it has been modelling the air quality for the next three days and automatically sending it to Barcelona City Council twice a day. This model maps the levels of NO<sub>2</sub> and PM<sub>10</sub> contamination forecast in the urban area for the next few days, using a dispersion model. The results are represented by means of an air quality index to facilitate public understanding and they can be publicly consulted on the Barcelona City Council website.

Since July 2016, Barcelona Regional has also been developing an air quality forecast model based on deep learning algorithms.



AIR QUALITY INDEX

- Good
- Moderate
- Fair
- Poor
- Very Poor

CLIMATE PLAN

CLIENTS Barcelona City Council, Environment and Energy Efficiency Area  
PERIOD 2017 • AREA Municipality of Barcelona, 102 km²



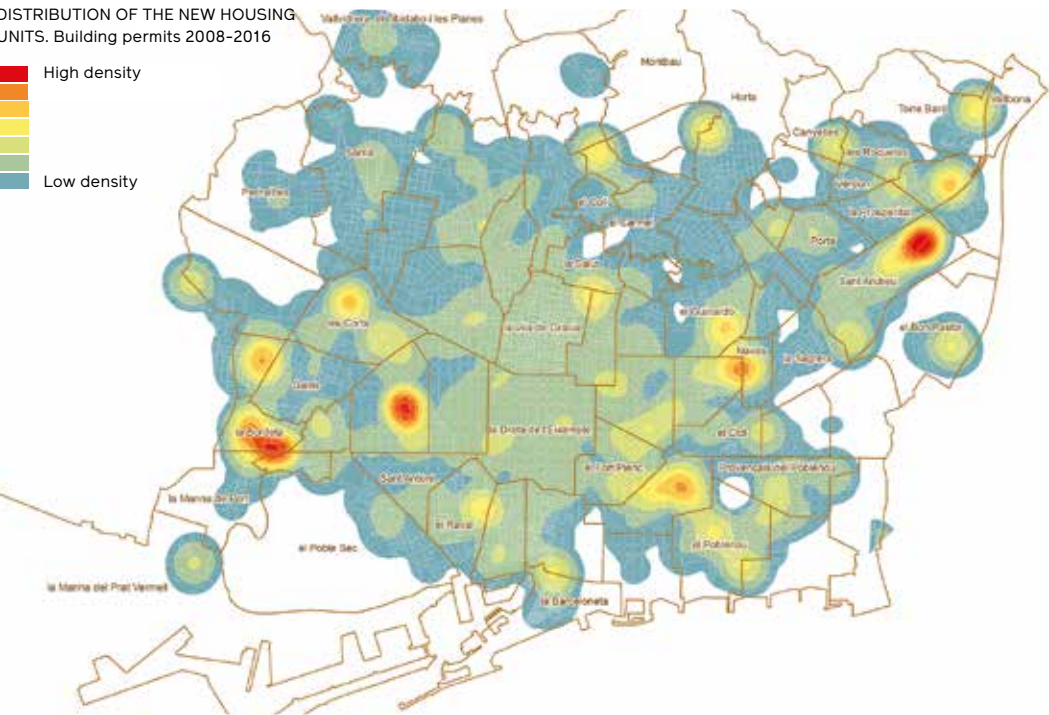
Barcelona prepared the Climate Plan in accordance with the organisation in Paris of COP 21, the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change and within the framework of the Citizen Commitment to Sustainability. The major objectives of this plan include the commitment to reduce greenhouse gas emissions by 40% by 2030 with respect to 2005 levels, and to increase urban green space by 1.6 km² as an adaptation measure.

Barcelona Regional participated in the preparation of the preliminary studies for the plan by diagnosing the consequences for the city of the heat island effect, heat waves, urban and maritime floodability, biodiversity, forest fires, air quality, the water cycle, energy flows and the risk to infrastructure. For further information about the plan you can consult: [www.lameva.barcelona.cat/barcelona-pel-clima/ca/plan-clima/que-es-el-pla-clima](http://www.lameva.barcelona.cat/barcelona-pel-clima/ca/plan-clima/que-es-el-pla-clima)

# HOUSING AND URBAN DEVELOPMENT

## URBAN DEVELOPMENT MEASURES ARISING FROM THE BARCELONA PLAN FOR THE RIGHT TO HOUSING (30% OF SOCIAL HOUSING ON CONSOLIDATED URBAN LAND)

CLIENT Barcelona City Council • PERIOD 2016—the present • AREA Municipality of Barcelona, 102 km²



Barcelona's high degree of consolidation and its lack of urbanisable land reserves make it essential to activate new mechanisms to help expand the area allocated to social policies, simultaneously enabling a more balanced distribution of social housing throughout the territory by taking advantage of the potential offered by the urbanised parts of the city. It should be highlighted that currently the city of Barcelona only has 6 to 7.5% of its regular housing stock set aside for social policies, which will be significantly reduced over the next few years due to the termination of compulsory extensions for tenancy agreements and the end of official protection for social housing properties on the market. The current legal framework in terms of housing establishes the obligation to allocate 15% of the city's regular housing to social policies by 2029, under the principles of diversity and social cohesion in the neighbourhoods.

Additionally, there are other factors that directly affect the usual use of housing, like the pressure of the land and housing market, property speculation and other uses that compete with use as the primary residence. These projects, in which Barcelona Regional participates in collaboration with various areas of Barcelona City Council, have the aim of preparing urban measures and amendments for the development of the 2016-2025 Barcelona Right to Housing Plan, which, given the city's affordable housing situation, plans to maximise diversification of the local administration's mechanisms.

The amendments to the General Metropolitan Plan (PGM) directly impact the urban regulation of housing in Barcelona in order to favour the right to housing in different ways: (1) reformulating the definition of primary residence, differentiating it from other potentially competing uses; (2) partial allocation of 30% to social housing (HPP) when approving the construction of apartment blocks on consolidated urban land (SUC), in the case of new builds or major rehabilitations; (3) two proposals within the framework of the land use and housing policy instruments provided for in urban development and housing legislation, namely the declaration of right-to-first-refusal areas throughout the city for buildings in certain cases, and the definition of building periods.

## PUBLICATION *MANUAL D'URBANISME DE LA VIDA QUOTIDIANA. URBANISME AMB PERSPECTIVA DE GÈNERE* [EVERYDAY LIFE URBAN DEVELOPMENT MANUAL. URBAN DEVELOPMENT WITH A GENDER PERSPECTIVE]

CLIENT Barcelona City Council • PERIOD 2017—the present



AUTHOR Ana Paricio, Barcelona Regional  
PUBLISHER Barcelona City Council;  
Ecology, Urbanism and Mobility Unit  
EDITION Barcelona, 2019  
LANGUAGE Catalan

Barcelona Regional has prepared the manual with the aim of providing planning criteria and assessment diagnosis tools from a gender perspective for technical staff who draft or supervise urban planning projects and/or regulations and prepare public space and facility projects.

Urban development with a gender perspective, or inclusive urban development, places the focus on knowledge of the life processes of the various social groups and seeks the best way to provide spatial and temporal support for their everyday needs and, simultaneously, respect the ecosystems.



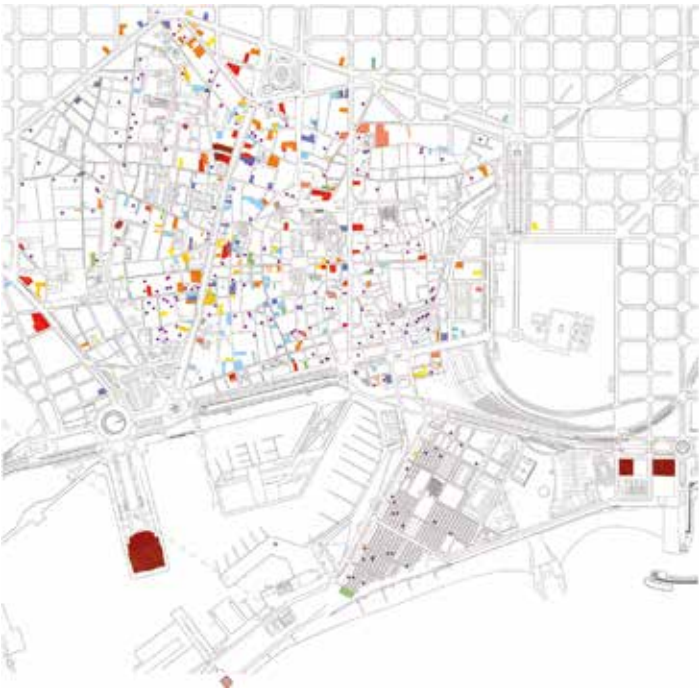
TOURISM

STUDY OF HOTEL USE IN THE OLD CITY

CLIENT Barcelona City Council • PERIOD 2008—2009 • AREA Old City District, 4.49 km²

The objective of this project was the analysis of hotel use in the Old City, within the framework of the revision of the District Uses Plan. The study contributes general and specific arguments and proposals for the regulation of the number, size, classification and location of hotels in the Old City and their harmonisation with their surroundings. Data referring to the district's hotels and tourist accommodation were exhaustively collected and completed with official statistics. Once the district's hotels were dimensioned and classified, other related variables with direct implications were also analysed: configuration of the public space, location of alternative types of tourist accommodation and the relationship between the resident population and the floating population using the hotels.

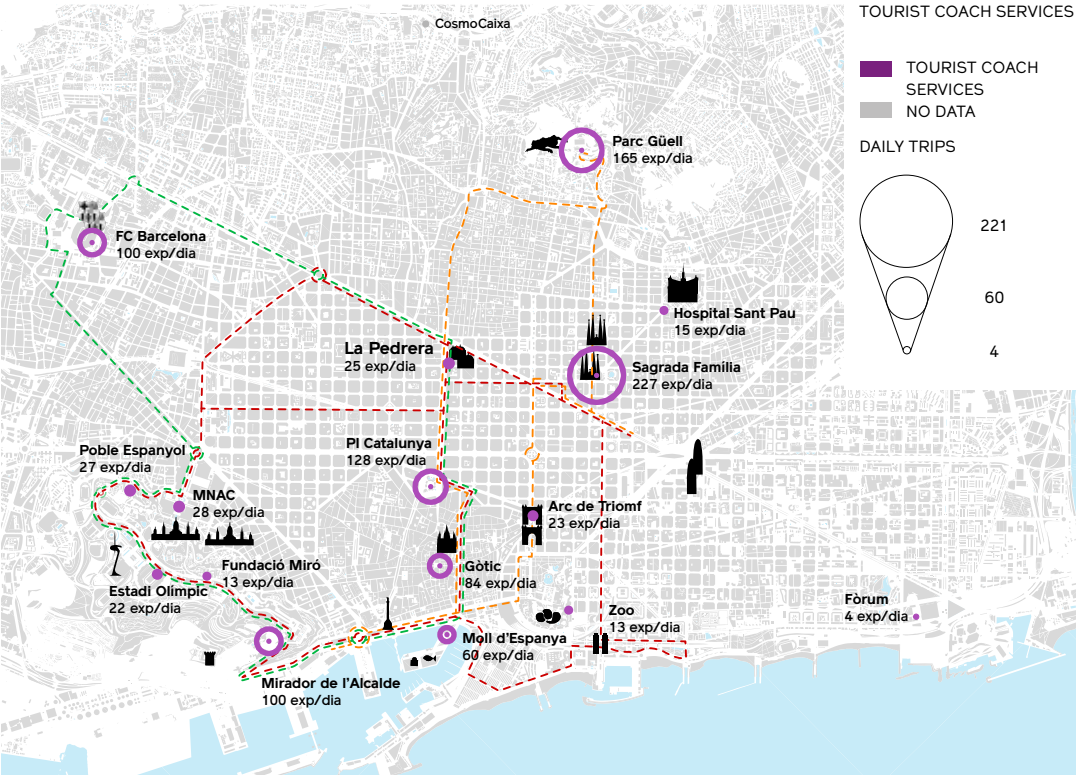
Based on this analysis a diagnosis was carried out to determine the degree of pressure exerted on the public space in accordance with the concentration of the floating population and of associated elements. A general conclusion was then drawn by summarising the current situation of the hotels and, finally, regulatory determinations were proposed regarding their location and permitted uses for their ground-floor levels, both in the district as a whole and specifically for hotels and tourist accommodation.



- TOURIST ESTABLISHMENTS  
BY TYPE AND CATEGORY
- HOTELS
- ★
  - ★★
  - ★★★
  - ★★★★
  - ★★★★★
- GUESTHOUSES  
AND APARTHOTELS
- Guesthouses ★
  - Guesthouses ★★
  - Aparthotels ★★★
- YOUTH HOSTELS
- TOURIST APARTMENTS

BARCELONA TOURISM MOBILITY STRATEGY

CLIENT Barcelona City Council • PERIOD 2017—2018 • AREA Barcelona, 102 km²



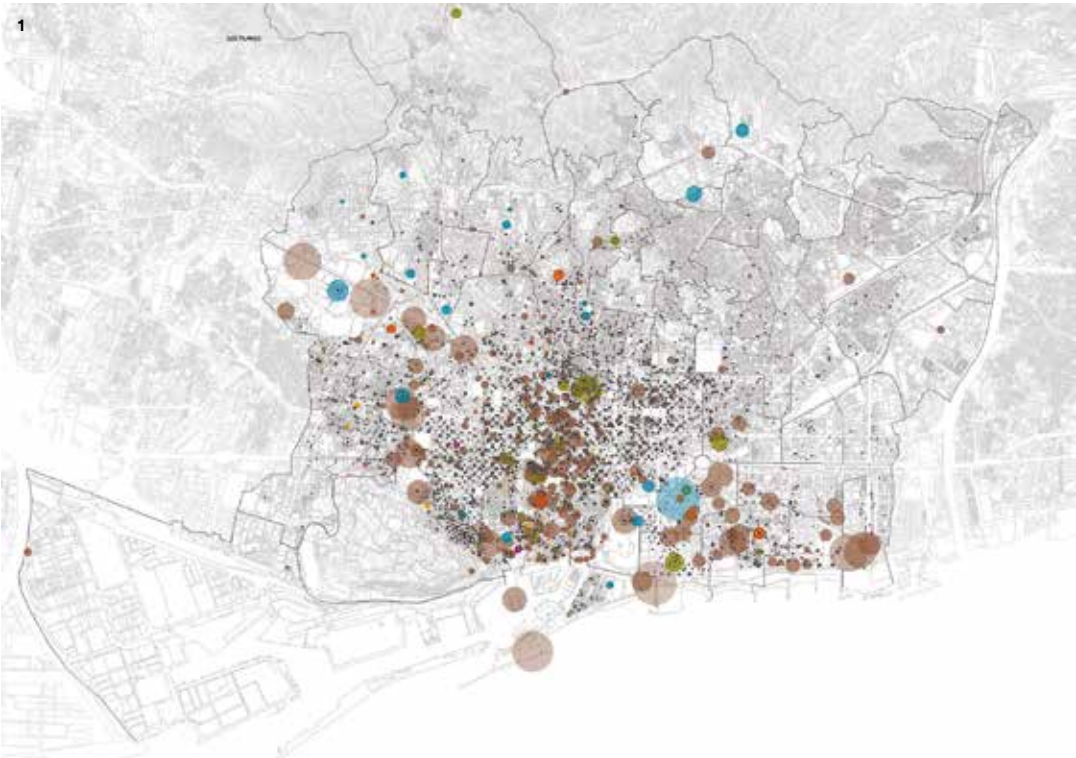
The Tourism Mobility Strategy (EMT) was created due to the need to meet the challenges of managing the city arising from the increase in the number of tourists in Barcelona and its forecast mid-term growth. The EMT studies tourism mobility in depth and includes it as an inherent part of urban mobility, integrating its dynamics, demands and practices, rather than treating it as exceptional mobility.

The EMT is, then, the result of associating mobility policies with tourism policies, and its aim is to diagnose the most important challenges in order to define strategic lines and proposals for actions. The proposal is to foster a responsible visitor model that is compatible with everyday mobility, guarantee the rational and coherent use of the transport systems and provide a response to the destination's management strategy. It is an unprecedented approach in Barcelona and unheard of in many other major European urban destinations. It represents one of the very few occasions that a document has structured a global analysis of tourism mobility guidelines to design urban policies.

SPECIAL URBAN PLAN FOR TOURIST ACCOMMODATION (PEUAT)

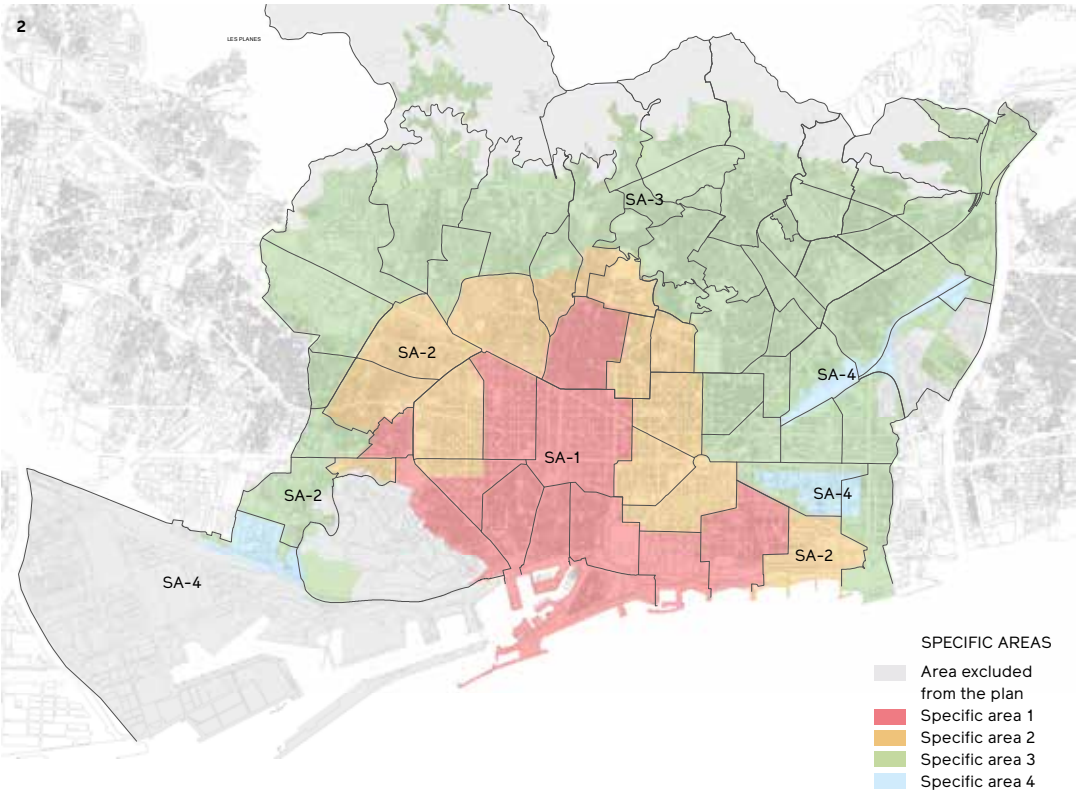
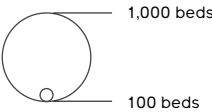
CLIENT Barcelona City Council • PERIOD 2015–2017 • AREA Barcelona, 102 km²

The special urban plan for the regulation of tourist accommodation, youth hostels, collective residences with temporary accommodation and tourist housing in the city of Barcelona (PEUAT) is an urban planning instrument whose aim is to regulate and control the implementation of tourist accommodation in the city and guarantee the fundamental rights of its citizens, specifically, the right to housing and a quality public space. Barcelona Regional collaborated on the drafting of the PEUAT as a technical consultant, providing Barcelona City Council with maps, databases and analyses regarding the key subjects of the plan, in addition to the maintenance and updating of the census of tourist accommodation establishments.



BEDS BY TYPE OF EXISTING ESTABLISHMENT

- Hotels
- Hotels or car parks
- Hostals or guesthouses
- Tourist car parks
- Youth hostels
- Halls of residence
- Tourist housing
- Planning permission granted or being processed



The PEUAT is a pioneering plan in terms of form and content that was created for essentially four reasons: alleviate tourism pressure; respond to citizen's concerns and unhappiness with the phenomena arising from tourism in saturated areas; balance and diversify the urban fabric, ensuring the sustainable integration of tourism; and guarantee residents' rights to housing, rest, privacy, wellbeing and good quality public spaces. The plan distinguishes four specific and separately regulated areas, each of which is classified by the distribution of the accommodation in its territory, the ratio of the number of beds to the current resident population, the relationship and conditions in which certain uses arise, the impact of their activities on public spaces and the presence of tourist attractions.



# MOBILITY AND INFRASTRUCTURE

## PICASSO PLAN

TUNNELLING OF THE RONDA DEL MIG AND PLAÇA D'ILDEFONS CERDÀ

CLIENT Barcelona City Council • PERIOD 1995–2001 • AREA Municipality of Barcelona, 11 linear km



The Picasso Project aimed to increase the capacity of certain streets or reduce their impact on others, in addition to improving certain deficient connections within the city's road network. The two major actions were the tunnel sections of the Ronda del Mig and the remodelling of Plaça d'Ildefons Cerdà.

The Ronda del Mig, conceived in the 1970s as an expressway, had become a large scar that, moreover, caused high levels of noise and contamination. The underground tunnels project created a new 2.2 km long public space that acts as the backbone of the neighbourhoods it crosses and improves both environmental conditions and the quality of life of residents.

Plaça d'Ildefons Cerdà was little more than a hub for different levels of motorways to connect Gran Via to the Ronda del Mig. Its transformation responded to the mobility needs that were proposed at the time, and generated major urban spaces in the surrounding area.



1. PICASSO PLAN. PROPOSED MAP  
2. PLAÇA D'ILDEFONS CERDÀ  
3. RONDA DEL MIG MAP

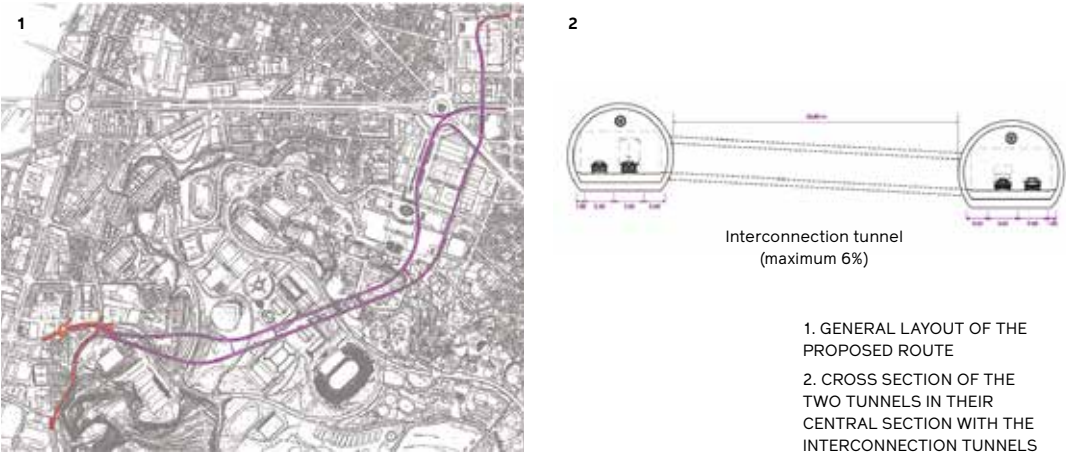
4. VIEW OF PLAÇA D'ILDEFONS CERDÀ FROM RAMBLA DE BADAL  
5. VIEW OF THE START OF RAMBLA DE BADAL AT PLAÇA D'ILDEFONS CERDÀ

MONTJUÏC TUNNEL PROPOSAL

CLIENT Barcelona City Council • PERIOD 2006—2007 • AREA 5.7 linear km

The possibility of constructing a tunnel in Montjuïc mountain was mooted in the years immediately prior to the 1992 Olympics. At that time, the construction of a metro line was also proposed under the mountain to connect La Marina and the free trade zone to the city centre, in addition to facilitating access to the Olympic Ring. Even though preliminary viability studies were conducted, the proposal did not prosper.

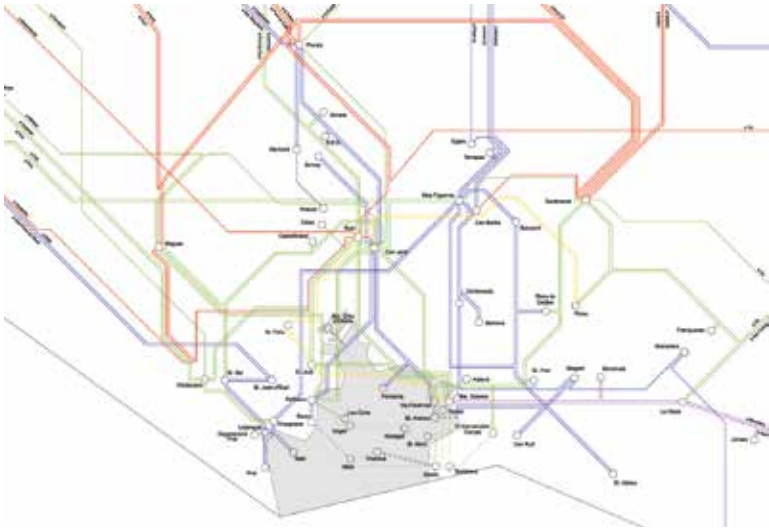
The Olympic Games led to the completion of the Ronda Litoral, which soon became the main road parallel to the sea as it provided access to the coastal area of the city and the port and the free trade zone. However, the restrictions caused by the El Morrot section, the fact that it only had two lanes in each direction, the high level of demand generated by local activities and the lack of alternative expressways led to rapid saturation.



Given that the urban nature of Gran Via, the other artery running parallel to the sea, limits its capacity, access to the free trade zone from the north, essentially via the Ronda Litoral and Gran Via, is limited by the congestion of these two roads. Therefore, the option of recovering the old idea of building a tunnel under Montjuïc was proposed, this time as a road, to improve access to the free trade zone from the city centre and vice versa. The first approach contemplated direct accesses from the Ronda Litoral at the cemetery. Later approaches connected the area surrounding Plaça d'Espanya to the free trade zone with accesses close to the crossroads of Carrer del Foc and Carrer dels Ferrocarrils Catalans, in a similar way to the method employed for La Rovira tunnel, on the other side of the city.

SPECIAL INFRASTRUCTURE DEVELOPMENT COMMITTEE (CEDI)

CLIENT Barcelona City Council • PERIOD 2008—2009—the present • AREA Municipality of Barcelona, 102 km²



The Special Infrastructure Development Committee (CEDI) was constituted by unanimous agreement of the Plenary Session of Barcelona City Council on September 28<sup>th</sup>, 2007 'In order to reach an institutional agreement with all the city of Barcelona's political, social and economic forces... with the aim of establishing the city's priority infrastructure'.

The complexity of the infrastructure is related to a variety of factors: territorial (directly or functionally, almost always beyond municipal territory borders), physical (with a major territorial impact like mobility infrastructure, or quasi-intangible infrastructure like telecommunications), competency (various administrations have responsibilities in a single system), funding (public resources of various administrations, but also private), operation (public, private, concessioned), regulatory frameworks (of various administrative scales and of various types), scale (even within the same and differentiated systems), time (processing and implementation periods are usually long...), etc. Given this complexity, it is vitally important for the negotiation, promotion and roll-out of infrastructure to have a framework of consensus to ensure that actions are consistent and ongoing over time, regardless of changes in political leadership.

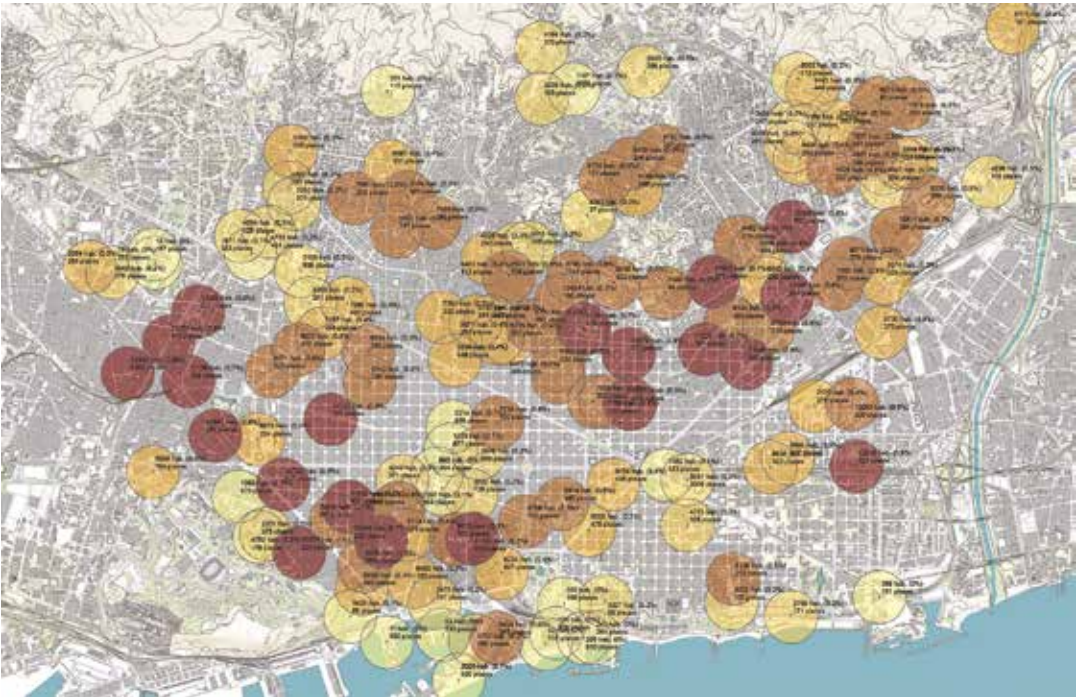
With this aim, Barcelona Regional (BR) acted as the technical secretary and carried out the technical clarification and negotiation work necessary to achieve the agreement that was finally signed by all the municipal groups and unanimously approved in the plenary session of September 26<sup>th</sup>, 2008. Since then, BR has regularly monitored the various proposals and applies the same criteria to periodically monitor and update all metropolitan infrastructure elements for the Barcelona Metropolitan Area.



PARTICIPATION IN THE LIVE PROJECT  
INTRODUCTION OF ELECTRIC VEHICLES INTO THE CITY OF BARCELONA

CLIENT Barcelona City Council • PERIOD 2009—2015 • AREA Barcelona, 102 km²

With the aim of converting Barcelona into a global benchmark in terms of electric vehicles, in 2009 Barcelona City Council implemented the LIVE Project (Logistics for the Implementation of Electrical Vehicles in Barcelona), which fosters the creation of a network of battery chargers for electric vehicles and the progressive incorporation of this type of vehicle into its municipal services. This project includes the participation, in this initial study phase, of around 20 public and private entities, including Endesa, the Polytechnic University of Catalonia, the RACC, SEAT, Nissan, Altran Technologies, TMB, Barcelona City Council and the Government of Catalonia. Barcelona Regional is collaborating on this project with the assistance of the city council's economic promotion work group to determine how to introduce electric vehicles into the city. For further information about the project you can consult: <https://livebarcelona.cat/en/>.



TOTAL PUBLIC CAR PARKS: 603,422 INHAB. (37.82 %)  
25,473 SPACES

- 0-2,500
- 2,500-5,000
- 5,000-7,500
- 7,500-10,000
- > 10,000

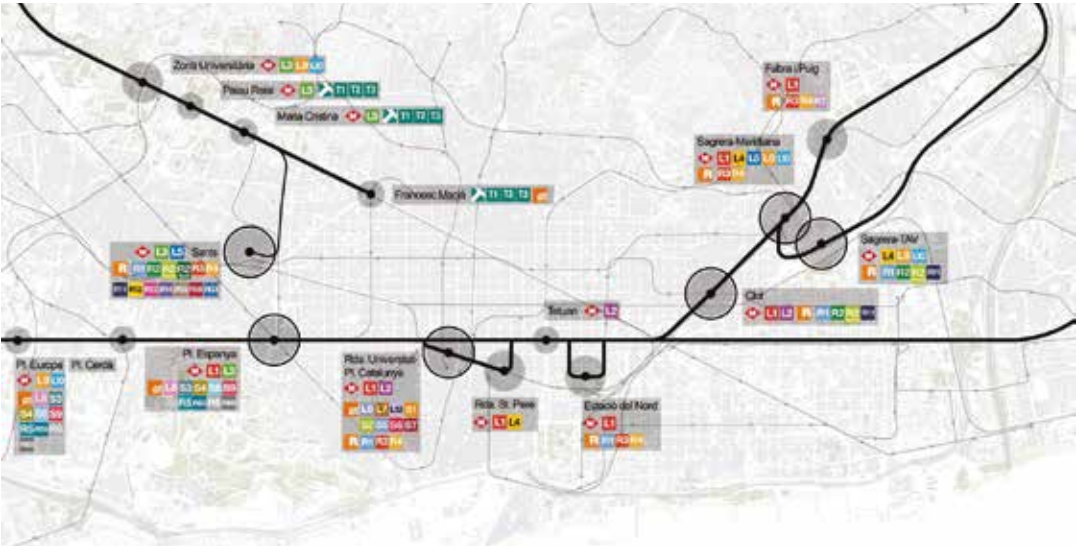
OBJECTIVE  
Observe, Reflect

Climate Change, Energy, Environmental Quality,  
Infrastructure, Mobility,  
Urban Development, Urban Strategy

TAGS

BARCELONA INTERCITY TERMINAL ZONING PROPOSAL

CLIENT Barcelona City Council • PERIOD 2017—2018 • AREA Barcelona, 102 km²



The intercity bus service plays an increasingly important role in Barcelona's accessibility. Every working day a total of 3,300 regular intercity services (23 metropolitan lines and 94 regional lines) and long-distance services (Ministry of Development and international lines, 50 in total) enter the city. There is also estimated to be an additional volume of some 900 buses and coaches providing services of different types.

Barcelona does not have a satisfactory bus terminal infrastructure and its layout is not suitable to absorb this growing demand. This means that currently the urban space plays the role of stops and terminals, resulting in significant inefficiencies and externalities. Noise, contamination, space occupation, impacts on the pavements, etc. have an adverse effect on the public space. The lack of suitable sites, owing to poor strategic forward planning, has caused the growth produced in recent years to be disorderly, which has led to an extreme situation at some points.

The study carried out by Barcelona Regional proposes a structure for the terminal stations and the network that enables the current lines to be concentrated in stations without having to go to the city centre. The main thesis of the proposal is based on selecting a series of stations to serve as terminals, located at the entrances of the transport corridors and that meet the city's criteria (rapid access via the city's basic road network and intermodal nodes with good connection to the high capacity railway network) and the criteria of the operator (waiting areas not on public roads and complementarity with the metropolitan railway network).

OBJECTIVE  
Plan

Environmental Quality, Infrastructure, Mobility

TAGS

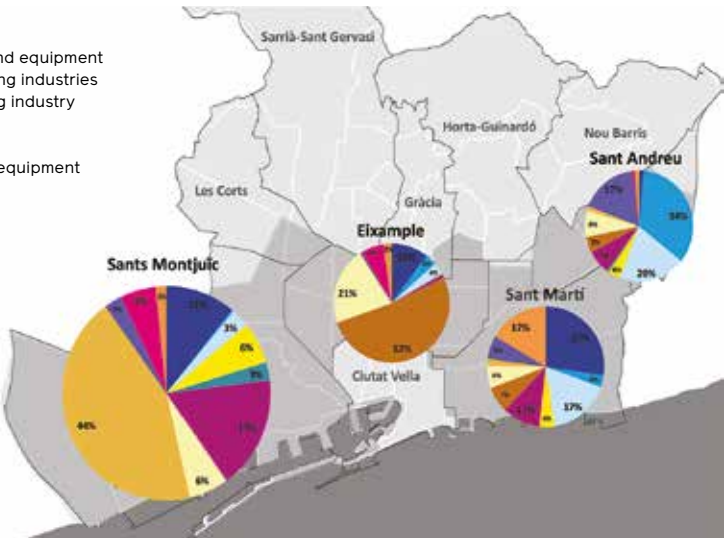


# ECONOMIC ACTIVITY

## INDUSTRIAL MAP OF BARCELONA

CLIENT Barcelona City Council (Barcelona Activa) • PERIOD 2009—2010 • AREA Municipality of Barcelona, 102 km²

- Food products
- Chemical industries
- Electric, electronic and optical material and equipment
- Furniture and miscellaneous manufacturing industries
- Textile, leather, footwear and dressmaking industry
- Other non-metallic mineral products
- Other machinery and equipment NCE
- Repair and installation of machinery and equipment
- Paper and graphic arts industries
- Metal products
- Motor vehicles
- Others



The aim of the Industrial Map of Barcelona was to describe and analyse both the structure of the industrial activities located in the city and their spatial organisation. With the goal of determining “their effects”, the study considered its main unit of analysis to be industrial establishments rather than companies. This approach enabled the determination of where industrial activity takes place and the interpretation of the territory based on variables like the type of activity, the number of employees and the level of technology. This industrial establishment analysis made it possible to improve the classification of the manufacturing industry sectors with a leading presence in the city, identifying which establishments had the best potential to be moved to other locations, the level of internationalisation and other specific features. Finally, the study identified the various situations in which industrial activity is carried out in the city, from specialist areas to more atomised industrial fabrics existing alongside residential and commercial uses.

In a period in which urban industry and the spaces where it was carried out were considered to be residual, the Industrial Map of Barcelona highlighted these activities as elements inherent to the urban economy. The diversity of economic activities and the relationships established between them (complementarity, dependency and, even, competition) form the foundations of urban complexity; in this sense, industry plays a fundamental role.

## BARCELONA NAUTICAL CLUSTER

CLIENT Barcelona City Council, Port of Barcelona • PERIOD 2011—2013 • AREA Municipality of Barcelona, 102 km²

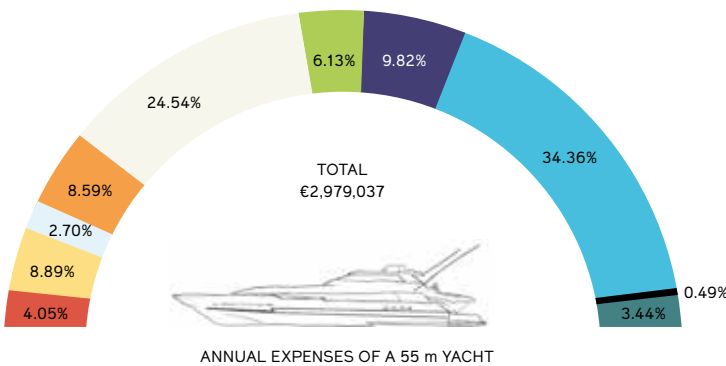


Barcelona Regional participated in the Barcelona Nautical Cluster definition process led by Barcelona City Council and the Port of Barcelona. With the objective of equipping the project with a solid structure, Barcelona Regional acted as the technical unit and coordinator of the various agents until just after the public constitution of the Nautical Cluster, in late 2013.

The Barcelona Nautical Cluster is a grouping of companies and public entities that aim to position the city as a nautical benchmark both in the Mediterranean Sea and globally and achieve a higher level of competitiveness and productivity within the sector to the benefit the city as whole. The integration of the bodies and companies related to the nautical sector will enable the generation of wealth and wellbeing, consolidate the existing industrial fabric, attract new investment and foster knowledge in the maritime sector.

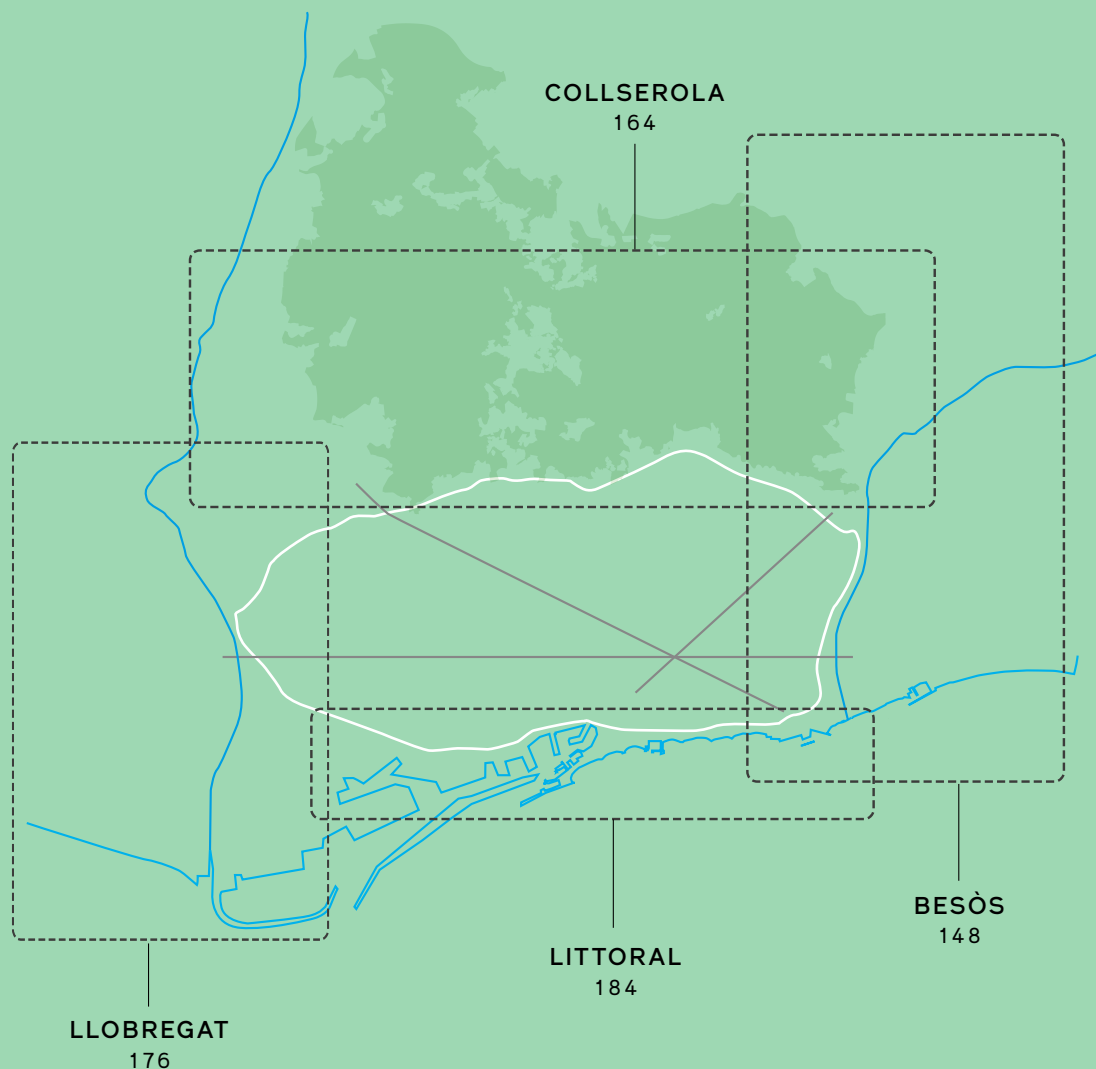
LENGTH > 24 m:  
DRIVERS OF THE NAUTICAL INDUSTRY

- Management and regulation fees
- Insurance
- Provisioning
- Mooring and ports
- R&R
- Crew and passenger spending
- Fuel
- Crew salaries
- Crew training and medical training
- Communication and navigation equipment



# WORKS

## RONDES TERRITORY



Attempts have often been made to describe the city of Barcelona in terms of the four toponymic areas into which this section is structured. Between two rivers and between the sea and the mountains. Besòs, Collserola, Llobregat and Littoral. As they condition the route of the Rondes these toponyms are considered to be, to a certain extent, topology. The capacity of this territory to be subject to continuous transformation and remain largely unaltered is proof of this.

Barcelona Regional has worked in all four areas over the past 25 years, both individually and in combinations, in various disciplines and on various scales, ranging from the strategic level with the question “What park do we want?” to more specific and material areas like the management and administration of the Besòs recovery work. From the technical and intensely administrative negotiation process concerning the new delimitations of the ZMT (Maritime Terrestrial Zone) to the construction of the reef park, the discreet underwater cherry on the cake of the Fòrum, one of the most intense transformations undertaken on urban land anywhere in the world. From the monitoring of all the infrastructure and environmental actions of the Delta Plan to the technically sophisticated executive project for the aborted construction of the Maritime Zoo. From the prospective multidisciplinary and breadth of the Besòs Agenda to the *interminable* monitoring of the successive informative studies and construction projects produced for the road and rail accesses to the Port of Barcelona. From the intricate adjustment of the historic imbalances between the physical reality and the planning of the Mountain Neighbourhoods to the renovation of the character and spaces of the Olympic Port, which is currently on the table... Projects in the four areas that configure the *Rondes territory*. Territory, used in the singular, and a singular territory into which Barcelona Regional has poured and continues to pour efforts and hopes.

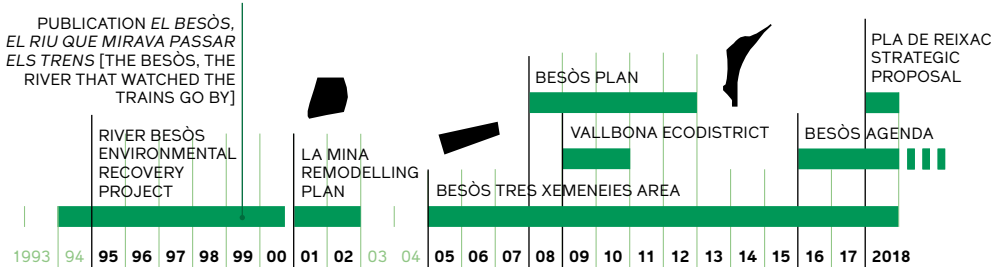


# BESÒS

The Besòs area includes part of the municipalities of Badalona, Montcada i Reixac, Sant Adrià de Besòs, Santa Coloma de Gramenet and of the Barcelona districts of Nou Barris, Sant Andreu and Sant Martí. It is located along the low basin of the river Besòs, from the gorge formed when it crosses the Catalan Coastal Range (including the skirts of Collserola and the Serralada de Marina) to its delta plain and mouth at the sea. Today, practically one million people live around the Besòs river, representing 30% of the population of Barcelona Metropolitan Area. With a surface area of more than 80 km², the Besòs area is made up of some 98 residential neighbourhoods, constituting Catalonia's most complex and diverse social landscape.

Although it has a number of geographic elements with the potential to lend it structure, such as the coastal plain and the seafront, the river Besòs itself, Collserola and the Serralada Marina mountain range, the area's inability to form an integrated territorial vision, exacerbated by a long history of chaotic urban growth, means that today, despite being the recipient of significant investments and projects, Besòs is still a fragmented and confused territory without a defined urban development project. Notwithstanding, as the metropolitan perspective gains importance, territories like Besòs are starting to secure elements of great potential thanks to their centrality and strategically accessible location in relation to the metropolitan region of Barcelona.

Historically, Barcelona Regional has played a key role in the Besòs area. It has participated in plans and projects with a variety of timeframes and scales such as the environmental recovery of the river Besòs, the 2004 Forum, the La Mina Special Inland Remodelling Plan (PERI), the Vallbona Ecodistrict, the Besòs Plan and the Besòs Agenda.





RIVER BESÒS ENVIRONMENTAL RECOVERY PROJECT

CLIENTS Consortium for the Defence of the River Besòs, Barcelona Metropolitan Area, Barcelona City Council, Montcada i Reixac City Council, Sant Adrià de Besòs City Council and Santa Coloma de Gramenet City Council  
PERIOD 1995–2000 • AREA 10 linear km

It was one of Barcelona Regional's first assignments and had the aim of recovering a contaminated river and transforming a river landscape that had been desecrated by industry into a linear park that combines nature with open-air leisure activities. It is a comprehensive project that involves various municipalities, from the inland area of Montcada i Reixac to the mouth at Sant Adrià de Besòs, and includes the reconstruction of marshes and the construction of new accesses, bridges, bicycle lanes and meadows for leisure activities.



The action incorporated the implementation of inflatable rubber dams, which change the landscape and enable water to be recovered from the central shallow water canal in the event of a sudden rise in the river's water levels. The intervention also included a new hydrological and environmental control and alarm system, in addition to the burial of all the high-voltage lines that ran along the river bed. Nowadays, the Besòs River Park constitutes the largest green and leisure area anywhere in the Besòs area.

The recovery project was implemented in two phases. The first covered a stretch 6.2 km in length. In the first section, at Montcada, surrounded by a less urbanised environment, reed areas were implemented on the banks as a tertiary treatment for the wastewater from the treatment plant. This recovered the river ecosystem and restored the landscape of the river bed. In the second section, at Santa Coloma de Gramenet and Barcelona, which is fully urbanised, a river park was created on both banks with lawned areas and bicycle lanes. The paths running parallel to the river, outside the bed, were also renovated to produce a promenade integrated into the river space.



WORKS – RONDÉS TERRITORY – BESÒS  
RIVER BESÒS ENVIRONMENTAL RECOVERY PROJECT

The second phase, which corresponds to the final 3 km stretch, includes the mouth of the river at the sea. The actions implemented there were similar to those in the previous urban sections and recovered sectors of the river bed to allow the public to pursue leisure activities. The mouth area was naturalised and areas for halophytic plants and saltwater environments were created, improving, in conjunction with the recovery of the beach at the mouth, environmental conditions for seabirds and waders. In short, it was a question of restoring the conditions typical of the mouths of unspoilt Mediterranean rivers, where the sea's sediments and salt water strike a balance with the river's contributions.

Recognition of the results achieved in this environmental recovery project was widespread both in Spain and throughout Europe, including a Special Mention in the European Prize for Urban Public Space (2002), issued by the Barcelona Centre of Contemporary Culture (CCCB) in collaboration with the Institut Français d'Architecture (Paris), the Nederlands Architectuurinstituut (Rotterdam), The Architecture Foundation (London) and Architekturzentrum Wien (Vienna), and a Special Mention in the Construction Award in the 2001 Construmat Awards for technological innovation.



PUBLICATION *EL BESÒS, EL RIU QUE MIRAVA PASSAR ELS TRENS*  
[THE BESÒS, THE RIVER THAT WATCHED THE TRAINS GO BY]

CLIENT Barcelona City Council • PERIOD 1999



It is a book written by Patrícia Gabancho and illustrated with photographs by Colita, which explains, as if it were a novel, the history of five cities (Montmeló, Montcada i Reixac, Santa Coloma de Gramenet, Sant Adrià de Besòs and Barcelona) and the recovery of the river Besòs. It is the story of how it was possible to collectively design a new opportunity for citizens to rediscover the river and for the cities to reinvent their relationship with it.

AUTHORS Patrícia Gabancho, Colita  
PUBLISHER Barcelona City Council  
EDITION Barcelona, 1999  
ISBN 84-7609-925-8  
LANGUAGE Catalan

LA MINA RENOVATION PLAN

CLIENTS Sant Adrià de Besòs City Council, Barcelona City Council • PERIOD 2001–2002 • AREA 25 ha

La Mina is a neighbourhood constructed in the late 1960s to provide housing for the occupants of Barcelona's shantytowns. It was a neighbourhood of 11,000 to 13,000 inhabitants, with numerous social and community coexistence problems. It was a highly complex urban intervention, given that it aimed to address some of the misconceptions that contributed to a long, controversial and unresolved debate about density as a generator of problems, the relationship between urban development and social questions and the position of collective facilities in conflictive social frameworks, among others.



A comprehensive approach was adopted, with three different aspects: sociology, buildings and urban development. The result was a proposal to transform the neighbourhood by spatially structuring it around an avenue as the central space for urban relationships and creating urban facilities and housing for new residents, slightly expanding its territorial scope. Improvements were also made to architectural aspects such as stairs and lifts in order to make coexistence more harmonious in the buildings. The development of the remodelling work was intense until the 2008 crisis, when the improvement process was forced to slow down.

Having defined the strategy for the development of the work, BR incorporated the collaboration of the Pere Tarrés Foundation, the Polytechnic University of Catalonia (UPC) and a team of external urban development specialists.



BESÒS TRES XEMENEIES AREA

CLIENTS El Barcelonès Regional Council, Endesa, Banco de Santander, El Besòs Consortium, Badalona City Council and Sant Adrià de Besòs City Council • PERIOD 2005—the present  
AREA 28 ha, 1 km of seafront

The area around the power stations, located in the municipalities of Sant Adrià de Besòs and Badalona, is the last major piece of the metropolitan coastline left to be transformed. Following the end of the industrial and power generation activities developed there, the opportunity arose for Sant Adrià de Besòs to be opened up to the sea and for Badalona to complete its seafront.



Since 2005, Barcelona Regional has been working on the preparation and coordination of various studies, covering among other subjects the recovery and consolidation of the beach, the assessment of the condition of the chimneys, service infrastructures, mobility, the environment and the economic aspects of the urban development operation. Their common aim is to have the knowledge and tools necessary to develop different planning alternatives. The main objectives that these alternatives propose are the connection and continuity of the zone with the local residential and economic fabrics, prioritising more permeability with the sea, the integration of the industrial heritage composed of the three chimneys and the turbine facility as major elements of the metropolitan landscape, the definition of a mixed neighbourhood in which economic activities play a major role to generate a centre of attraction to help with the transformation, paying special attention to the area's natural elements (the mouth of the river and the beach) and the planning of suitable free spaces and facilities.



VALLBONA ECODISTRICT

CLIENT Barcelona City Council • PERIOD 2009–2010 • AREA 33 ha

The area of Vallbona, in the north of Barcelona, was the only ARE (strategic residential area) that the Government of Catalonia planned to build in the city. The AREs were instruments created by the Government of Catalonia to urgently process land for the construction of affordable housing. The initial project, with Barcelona Regional providing technical support and a citizen participation process organised with entities in Vallbona and Nou Barris, was reformulated to incorporate zoning criteria that took into account the optimisation of passive energy-saving systems and natural resources.

The Vallbona ecodistrict project contemplated the construction of a new residential area for more than 2000 homes, the improvement of connections with surrounding areas and the enhancement of the area's singular landscape and environmental features. The measures for better environmental behaviour that were considered included a centralised district heating and cooling system based on solar energy harnessed on all the roofs in the area. In relation to water and the water cycle, a complex system that considered the recovery of rainwater, the use of phreatic water and the implementation of grey water systems was planned. At the same time, the occupation model allowed much of the existing agricultural land to be maintained and provided for large land reserves for facilities and open spaces.





BESÒS PLAN

CLIENTS El Besòs Consortium, El Barcelonès Regional Council, Barcelona City Council, Montcada i Reixac City Council, Sant Adrià de Besòs City Council and Santa Coloma de Gramenet City Council  
PERIOD 2008–2012 • AREA 850 ha



The Besòs Plan had the aim of proposing a set of infrastructure and non-residential elements to be shared by the municipalities in the Besòs territory. The plan integrated various projects that had already been planned, providing them with territorial coherence, and also put forward new ones. The objective was to transform the river into the urban backbone of the entire territorial environment, incorporating an interdisciplinary vision into its design with a mid- to long-term planning perspective.

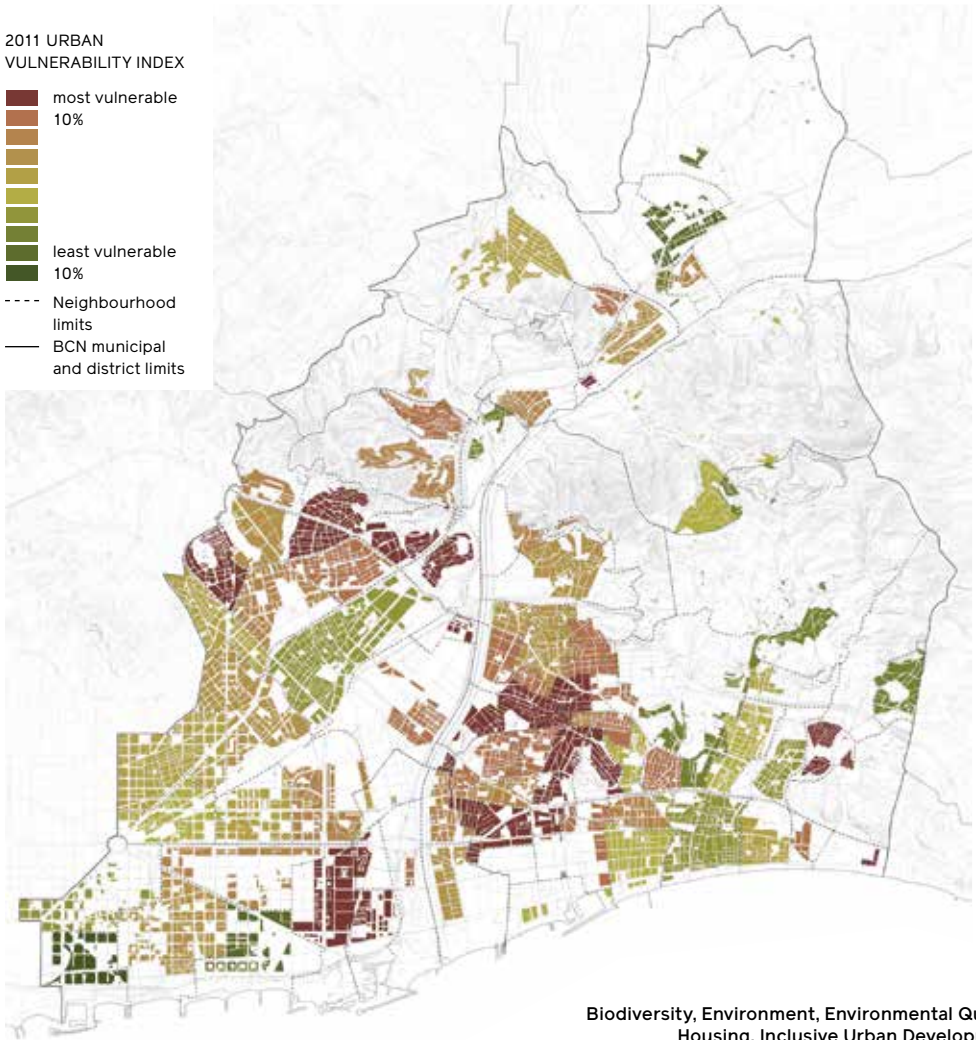
OBJECTIVE  
Reflect, Plan

TAGS  
Biodiversity, Environment, Environmental Quality,  
Infrastructure, Littoral, Mobility, Public Space,  
Urban Development, Urban Projects, Water

BESÒS AGENDA

CLIENTS Besòs Consortium, Badalona City Council, Barcelona City Council, Montcada i Reixac City Council, Sant Adrià de Besòs City Council and Santa Coloma de Gramenet City Council  
PERIOD 2016–the present • AREA 81 km²

The Besòs Agenda is the latest strategic document to be drafted by Barcelona Regional in the area surrounding the Besòs river. The project, commissioned by the Besòs Consortium, in which Barcelona Regional provided technical support, also included the participation of the Barcelona Institute of Regional and Metropolitan Studies (IERMB) and the Institute of Government and Public Policy (IGOP) of the Autonomous University of Barcelona.



OBJECTIVE  
Observe, Reflect, Plan

TAGS  
Biodiversity, Environment, Environmental Quality,  
Housing, Inclusive Urban Development,  
Infrastructure, Landscape, Littoral, Mobility,  
Public Space, Resilience, Urban Development,  
Urban Projects, Urban Strategy, Water

2

STRATEGIC VISION

10 OBJECTIVES

1. SHARED IDENTITY
2. VULNERABILITY
3. TRAINING
4. HOUSING
5. ACCESSIBILITY
6. INFRASTRUCTURE
7. ENVIRONMENTAL QUALITY
8. KNOWLEDGE
9. ASSOCIATIONS
10. GOVERNANCE

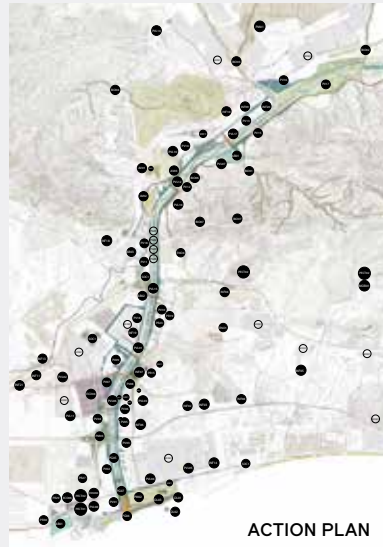
50 STRATEGIC LINES

ACTION PLAN

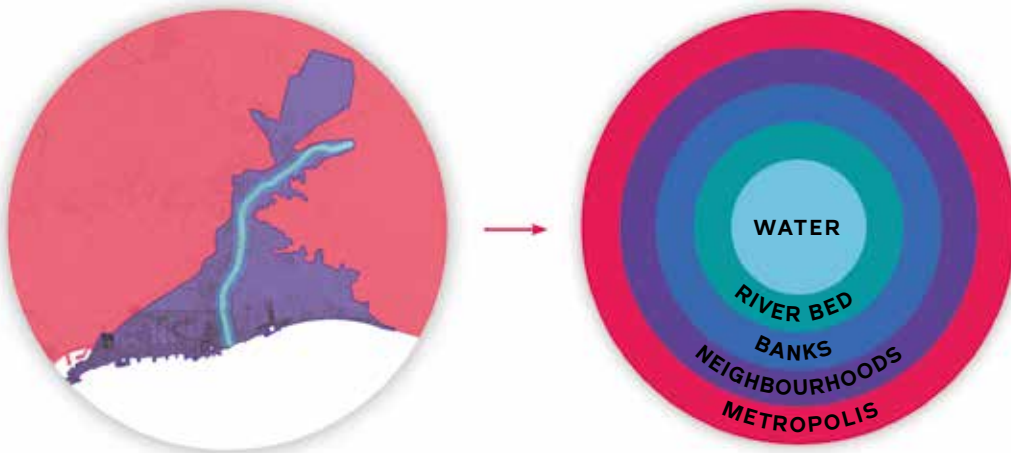
5 ACTION PILLARS

- 1 FOSTER BESÒS GREEN-BLUE INFRASTRUCTURE
- 2 DESIGN THE BANKS OF THE BESÒS BANKS PROJECT
- 3 REGENERATION OF INDUSTRIAL LAND
- 4 REDUCE THE URBAN VULNERABILITY OF BESÒS NEIGHBOURHOODS
- 5 FOSTER KNOWLEDGE NODES AND PRODUCTIVE AND COOPERATIVE ACTIVITY

130 PROJECTS



3



1. MAP OF THE URBAN VULNERABILITY INDEX (IERMB, 2016)

2. SUMMARY. STRATEGIC VISION AND PLAN OF ACTION

160

3. ACTION PLAN ON FIVE SCALES OF INTERVENTION: WATER, RIVERBED, RIVERBANKS, NEIGHBOURHOODS AND THE METROPOLIS

4



With the involvement of the technical and political teams of the five Besòs municipalities (Barcelona, Badalona, Santa Coloma de Gramenet, Montcada i Reixac and Sant Adrià de Besòs), the Agenda agrees a shared strategy that commits to the urban development of this entire area over the course of the next few years. It is a collaborative effort that zones the initiatives and the existing resources and prioritises projects whose main objective is to improve the quality of life of Besòs residents, generating new economic and employment opportunities. It is a strategy that proposes the joint deployment of social policies and channels collaboration dynamics and shared projects throughout the territory.

In this sense, the agenda's plan of action proposes a set of 130 projects, actions and activities organised around five points of intervention: water, the river bed, the banks of the river, the neighbourhoods and the metropolis.

5



4. PANORAMIC VIEW OF THE RIVER MOUTH

5. ACTIVITY IN THE RIVER PARK

161



## STRATEGIC PROPOSAL FOR PLA DE REIXAC

CLIENT Montcada i Reixac City Council • PERIOD 2017–2018 • AREA 450 ha

The plains area of Pla de Reixac is located between the municipalities of Montcada i Reixac, Santa Perpètua de Mogoda and Ripollet, and bridges the gap between the towns of La Llagosta and Barberà del Vallès. It is an open space covering some 450 ha that is one of the largest dryland farming areas in the metropolitan environment between the Barcelona Metropolitan Area and El Vallès. In this context, Montcada i Reixac City Council asked the AMB to commission Barcelona Regional to formulate a strategic proposal to explore options to guarantee the preservation of the area's values and formulate a strategy for this large expanse. In short, a multiscale analysis and diagnosis of the space and a definition of a framework scenario for the future of Pla de Reixac.

**PROTECT: A QUALITY OPEN SPACE**

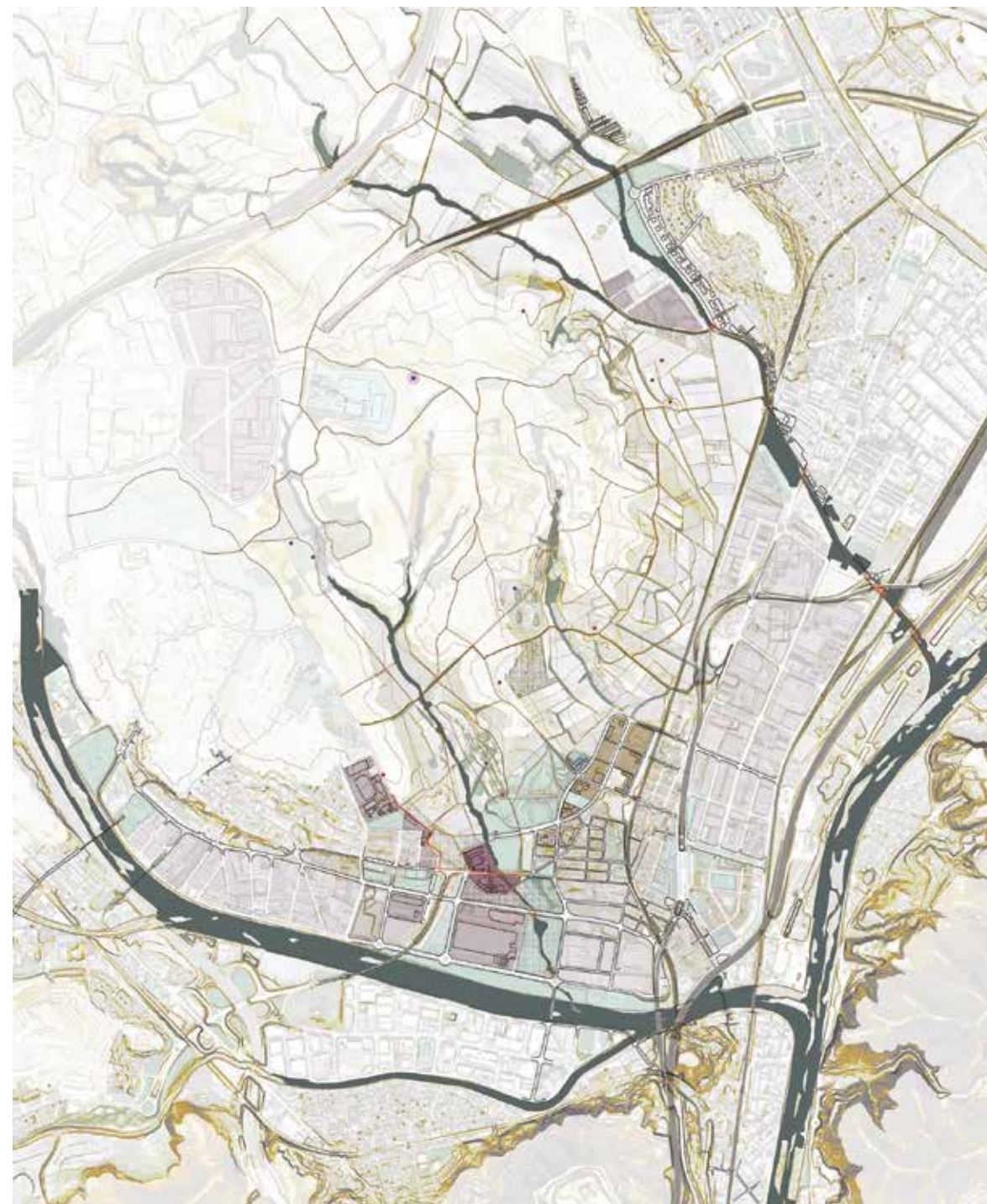
Multi-scale protection of the space to ensure the preservation of its values and allow it to become a quality, restored open space without any impacts that could endanger its values and the potential for public use and enjoyment.

**ACTIVATE: A METROPOLITAN OPEN SPACE**

Activate Pla de Reixac as a metropolitan urban park, creating a joint project that is integrated into the territory, connected to the exterior and in harmony with other major metropolitan and El Vallès spaces.

**EQUIP: ECONOMIC AND KNOWLEDGE RESOURCES**

Ensuring sustainable management of the space is key to guaranteeing its protection and the actions that are to be undertaken to transform it into a metropolitan park.

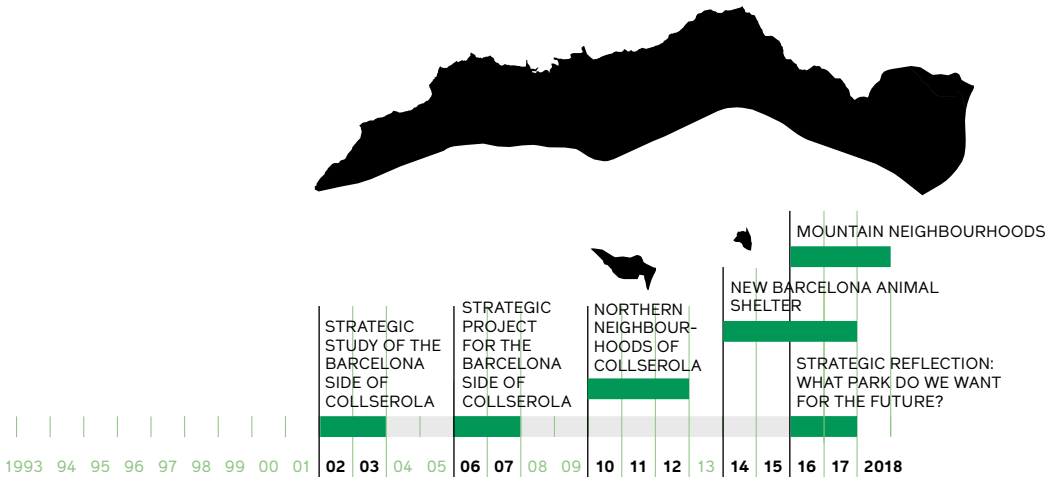




# COLLSEROLA

The Collserola massif is a key part of the metropolis's territorial matrix, a strategic element for the preservation of biodiversity and ecosystems and a singular area due to its location in the middle of the metropolitan environment. Collserola, which was declared a Natural Park in 2010, is also a large natural space that is located close enough to the city to allow millions of people to enjoy its thousands of hectares. This proximity to urban systems constitutes part of its enormous value. But it also creates a high level of pressure: Collserola suffers fragmentation and isolation due to roads, railways, electricity lines and other infrastructure elements and due to urban developments and periurban uses that cross or border the park and place stress on its values. Many of these services, infrastructure elements and facilities are at the same time fundamental for the operation of the metropolis.

The strong urban stresses to which the massif is subjected compromise its ecological functionality, due to the fact that its high levels of use are not accompanied by a collective awareness of its environmental values and its importance to the health and metabolism of the city. To guarantee its preservation, it is necessary to ensure the production of ecological processes, prevent the fragmentation of this space and its isolation from the rest of the open spaces in the metropolitan environment and make it compatible with public leisure activities.





STRATEGIC STUDY OF THE BARCELONA SIDE OF COLLSEROLA

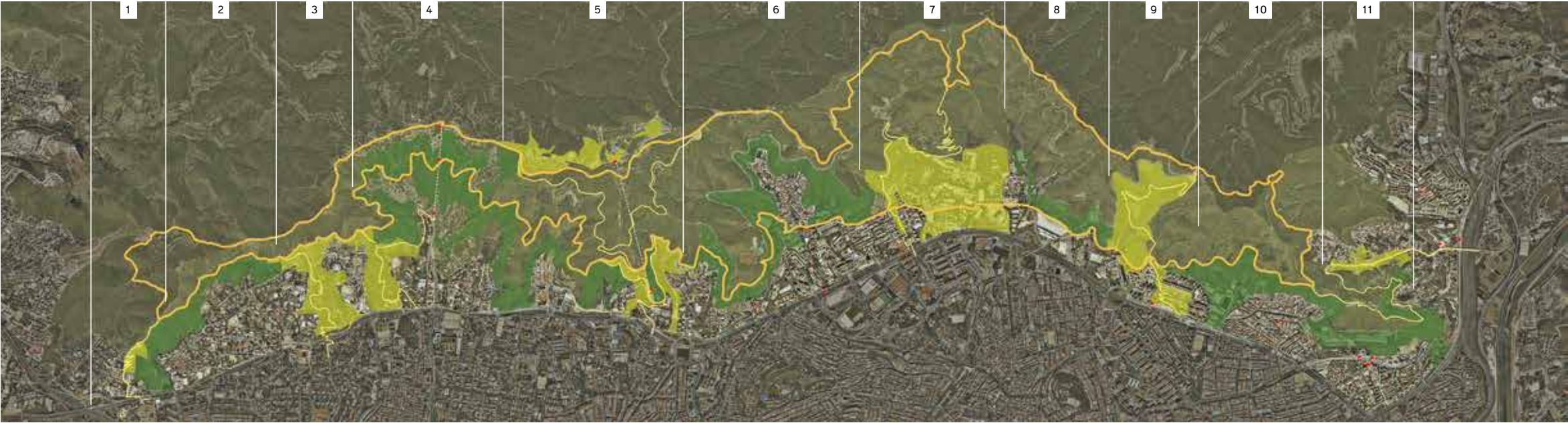
CLIENT Barcelona City Council • PERIOD 2002–2003 • AREA 1,600 ha

As a result of an agreement between Barcelona City Council and the Collserola Park Consortium in 2002 the need to reflect on the set of urban development processes being applied on the Barcelona side of the Collserola mountain range was proposed. The study established a model that committed to a coherent relationship between the park and the city, taking into account their respective internal dynamics and based on the various conditioning factors. The multidisciplinary work team for this project was made up of technicians from the Collserola Park Consortium, the Barcelona City Council Urban Development Department, the Autonomous University of Barcelona and Barcelona Regional.

STRATEGIC PROJECT FOR THE BARCELONA SIDE OF COLLSEROLA

CLIENT Barcelona City Council • PERIOD 2006–2007 • AREA 1,600 ha

This project continued on from the Strategic Study of the Barcelona Side of Collserola, formalising a proposal to integrate the Collserola mountain range into the city of Barcelona and resolve the definition of the city's mountain section. With this aim in mind the project proposed going beyond a single, definite border to recognise a buffer or transitional zone in which the urban and natural worlds could coexist, with clearly defined uses and management. The project formalised the structure of this space based on a zoning model applied along the entire slope.

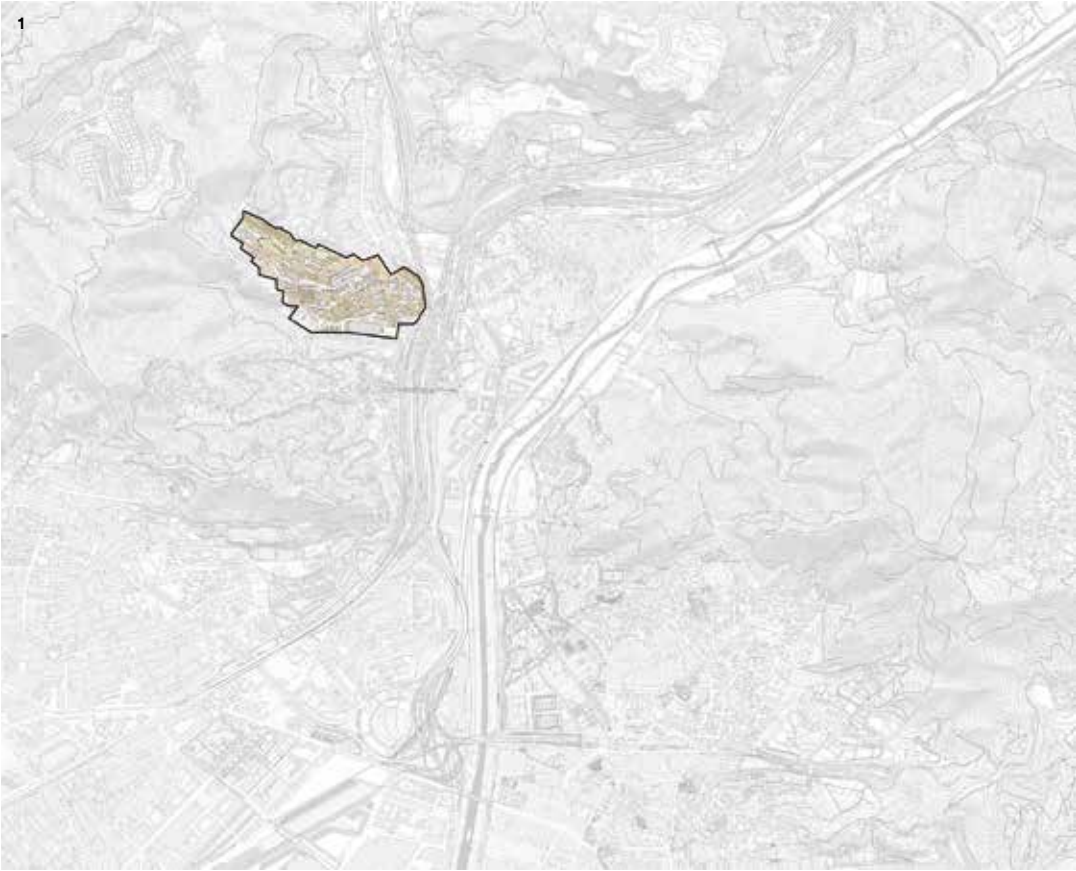


- |   |   |  |
|---|---|--|
| 1. Cervantes   Sant Pere el Màrtir<br>Connection zone           | 5. Tibidabo<br>Connection zone                        | 9. Vall de Sant Llàtzer<br>Connection zone |
| 2. Sant Pere el Màrtir   Pearson<br>Contact strip               | 6. Pentitents   Sant Genís<br>Contact strip           | 10. Canyelles   Roquetes<br>Contact strip  |
| 3. Oreneta   Sentmenat<br>Connection zone                       | 7. Montbau   Vall d'Hebron   Horta<br>Connection zone | 11. Torre Baró<br>Connection zone          |
| 4. Vallvidrera   Bellesguard   Torre de Vilana<br>Contact strip | 8. Cotxeres<br>Contact strip                          |  |



PLANNING CRITERIA FOR BARCELONA'S NORTHERN NEIGHBOURHOODS  
CIUTAT MERIDIANA

CLIENT Barcelona City Council • PERIOD 2010—2012 • AREA 35.50 ha



Barcelona Regional was commissioned by Barcelona City Council to develop a proposal for action in the Ciutat Meridiana neighbourhood. The development of the Neighbourhoods Law had represented an inflection point in Catalonia's urban policies and the commission was based on the premise that it was necessary to reformulate the intervention strategy that had been implemented in the area to date. Additionally, the arrival of the financial crisis made it necessary to prioritise efficiency in public action mechanisms.

The proposal developed a joint strategy that integrated and coordinated all the actions planned for the area in line with the comprehensive urban vision proposed by the Neighbourhoods Law, with coordinated actions in the physical, social, economic and environmental areas. The project also included intervention from various scales of action with the agreement of the different local agents, including the various levels of administration and the community fabric itself.

2





NEW BARCELONA ANIMAL SHELTER

CLIENT Barcelona City Council • PERIOD 2014—2017 • AREA 60,390 m<sup>2</sup>



Barcelona Animal Shelter is a facility managed by Barcelona City Council that is responsible for the comprehensive care of animals that need to be adopted. The project consists of the formalisation of a new centre in Montcada i Reixac, within the limits of Collserola Natural Park.

The architectural proposal is in line with all the pre-existing topographical, hydrographical and infrastructure determinants of the plot and was structured into two clearly differentiated areas: first, the main structure (administration, public, veterinary staff, storerooms and service areas, etc.), which consists of a compact building with two semi-basement floors that is adapted to the relief of the area to ensure that it cannot be seen above the access road. Its roofs are planned to be covered in vegetation as a continuation of the area's shrubland. The second section is an extensive area with rows of buildings of a limited height, where the animal facilities are located. Barcelona Regional has also drafted the urban development and environmental documents necessary for the project.

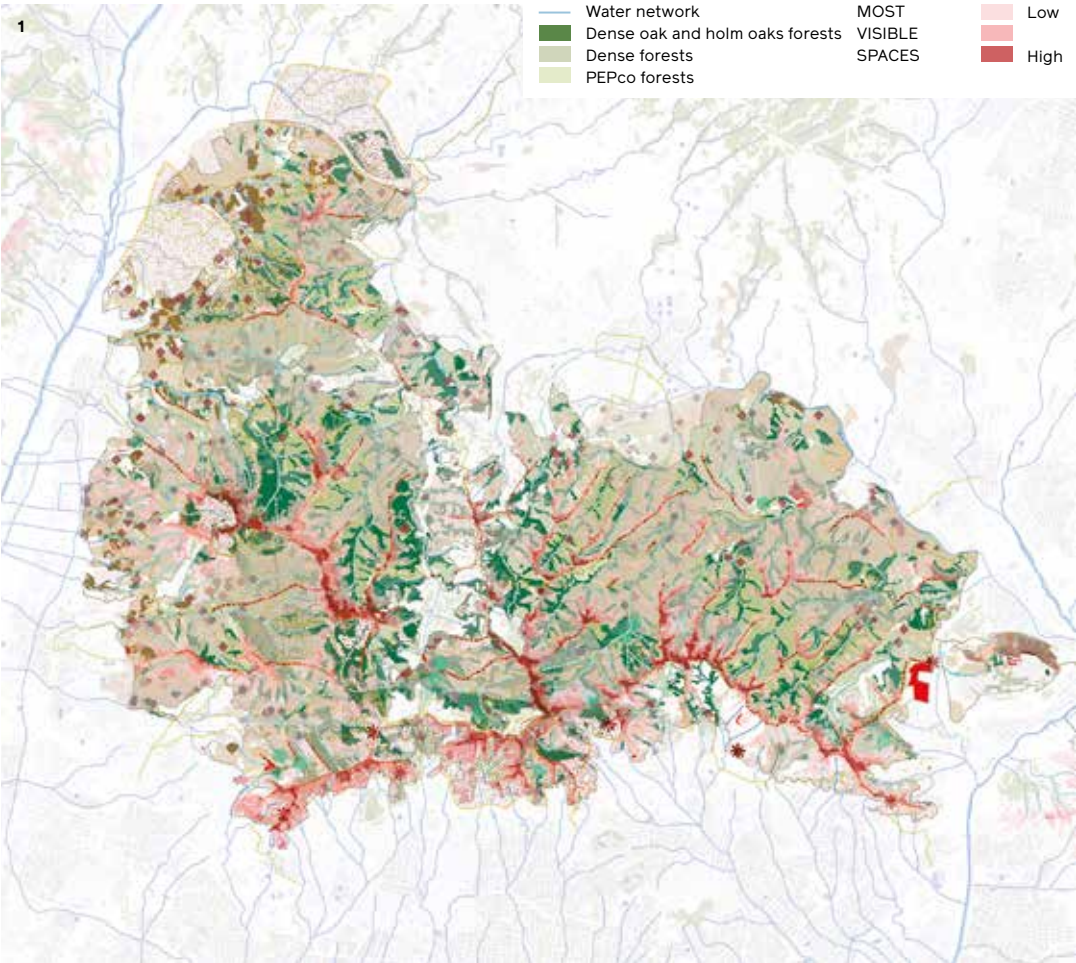




STRATEGIC REFLECTION: WHAT PARK DO WE WANT FOR THE FUTURE?

CLIENT Barcelona City Council • PERIOD 2016—2017 • AREA 8,295 ha

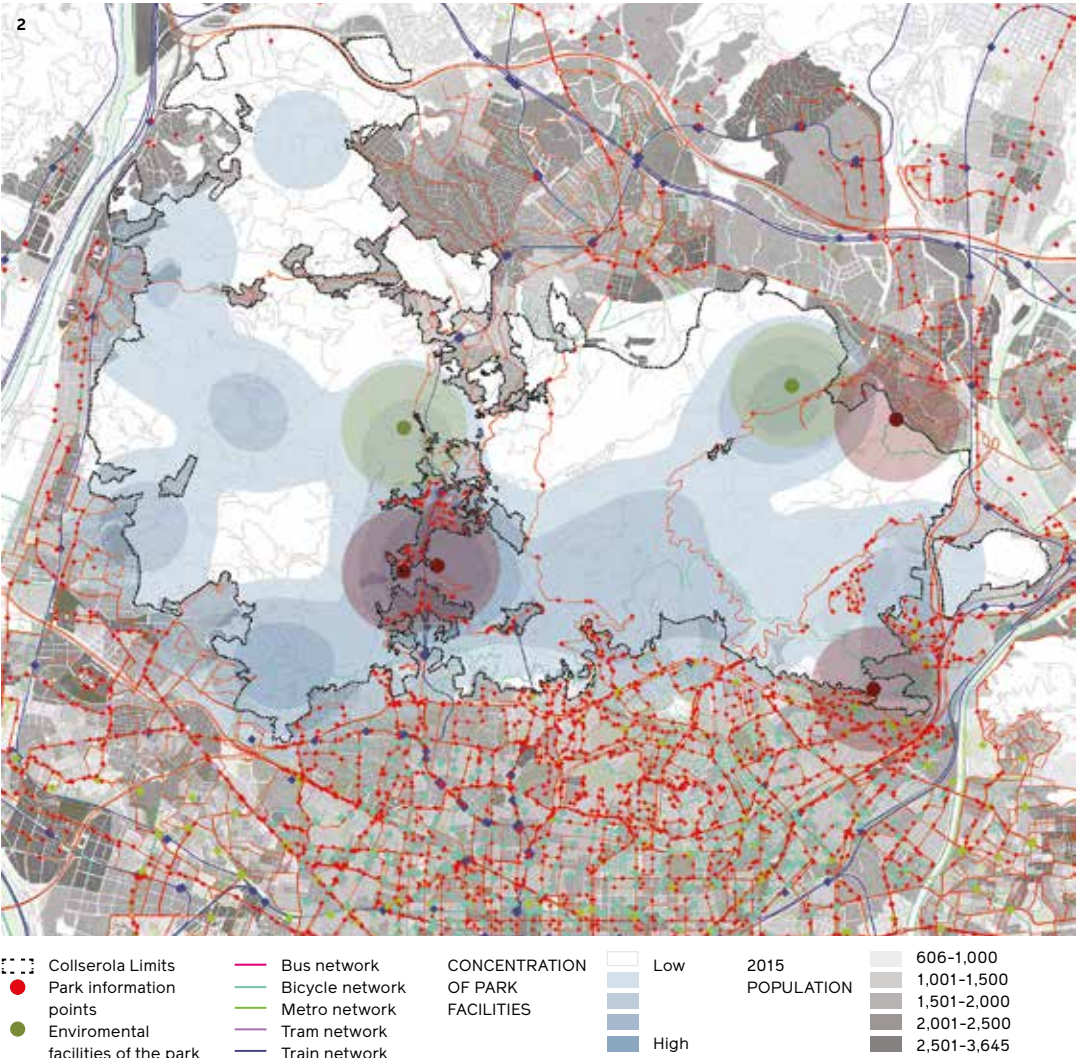
The declaration of Collserola as a Natural Park in 2010 (Serra de Collserola Natural Park) meant that it was necessary to update the Collserola Park Special Zoning and Environmental Protection Plan (PEPCo), which had been approved in 1987. Barcelona Metropolitan Area drafted the Collserola Special Natural Environment Protection Plan (PEPNat), which is currently in the processing stage. This new special plan was in line with the future park model agreed by the 11 municipalities that form it.



TAGS

Biodiversity, Environment,  
Environmental Quality, Landscape, Mobility,  
Public Space, Resilience, Territorial Strategy,  
Urban Development, Urban Strategy

Barcelona City Council commissioned Barcelona Regional to prepare a document that defines Barcelona's positioning with respect to the park model. The proposed model is based on three ideas: protect the values of this singular, valuable and stressed space; convert it into a park for everyone, that is, make Collserola a space that caters to the need to be around nature of all citizens and provides different reasons to visit it, without exacerbating current overcrowding issues; and, finally, equip Collserola with more resources to develop the strategic objectives, overcome the challenges of anthropic pressure and environmental risks and resolve the complexity of its management, which has become increasingly acute.



1. COLLSEROLA LANDSCAPE  
CONFIGURATION ELEMENTS

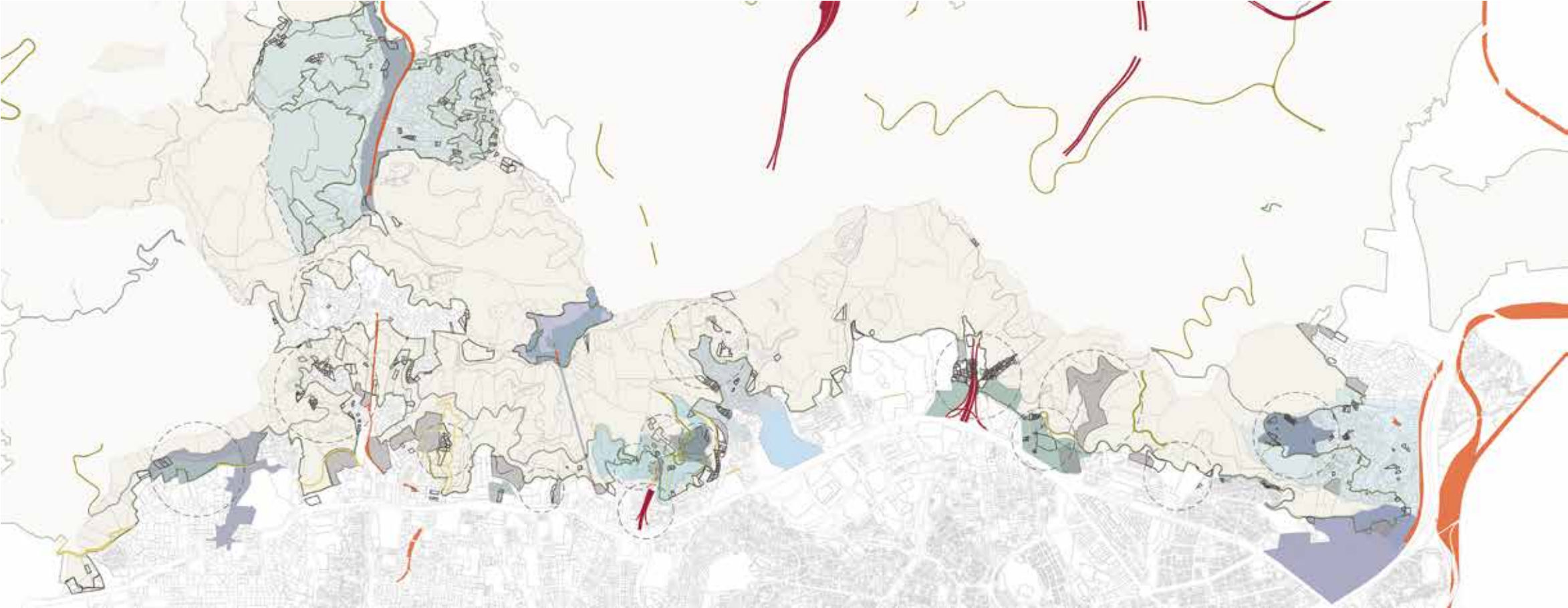
2. PARK FACILITIES IN RELATION TO PUBLIC  
TRANSPORT AND POPULATION DENSITY IN  
THE PARK ENVIRONMENT



MOUNTAIN NEIGHBOURHOODS

CLIENT Barcelona City Council • PERIOD 2016—2018 • AREA 1,600 ha

On the Barcelona side of Collserola there are a number of different areas that have historically been a subject for debate, mainly due to their complex urban development situation: settlements with urban development defects and consequently major deficits, areas set aside for roads and railway connections that will probably not be developed, and, moreover, many instances of unrealised plans and projects. Barcelona Regional has analysed the entire area referred to as the Mountain Neighbourhoods, which includes much of the functional space on this side of the Collserola, in order to define a global vision that is consistent with the natural park model and is capable of providing a suitable response to these historic problems.

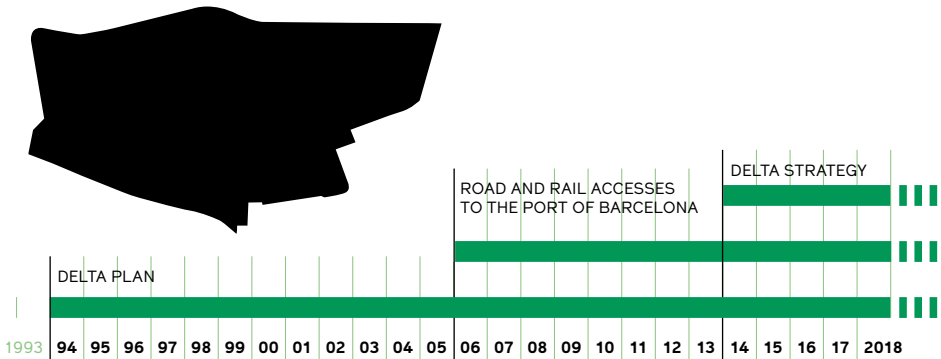


- Road reserves
- Railway reserves
- Local road reserves not executed
- Not regulated or affected
- Planning sectors
- Collserola Park limits



# LLOBREGAT

The Llobregat Delta is a strategic area from the environmental perspective, with elements of great ecological and systemic value, upon which a key territory in terms of production, logistics and infrastructure has been created. This environment contains Catalonia's main logistics infrastructure: the Port of Barcelona, El Prat Airport and the main intermodal goods terminals. More than half of the metropolitan area's productive land is concentrated around this area, with the free trade zone industrial estate as its main reference point. The fundamental spaces of the metropolis's ecological matrix located in and around the mouth of the river Llobregat include the wetlands, which are home to a high level of fauna diversity and habitats and are protected by various regulatory instruments; the Agrarian Park, which covers a surface area of more than 3,000 ha distributed among 13 municipalities; and the aquifer, which is a significant water reserve for the towns and cities in the environment of the delta, including Barcelona. Within this area, Barcelona Regional carries out a variety of projects for many of its main operators.





DELTA PLAN

ZONING OF THE LLOBREGAT DELTA INFRASTRUCTURE

CLIENTS Barcelona City Council, L'Hospitalet de Llobregat City Council and El Prat de Llobregat City Council  
PERIOD 1994—2009—the present • AREA 4,000 ha

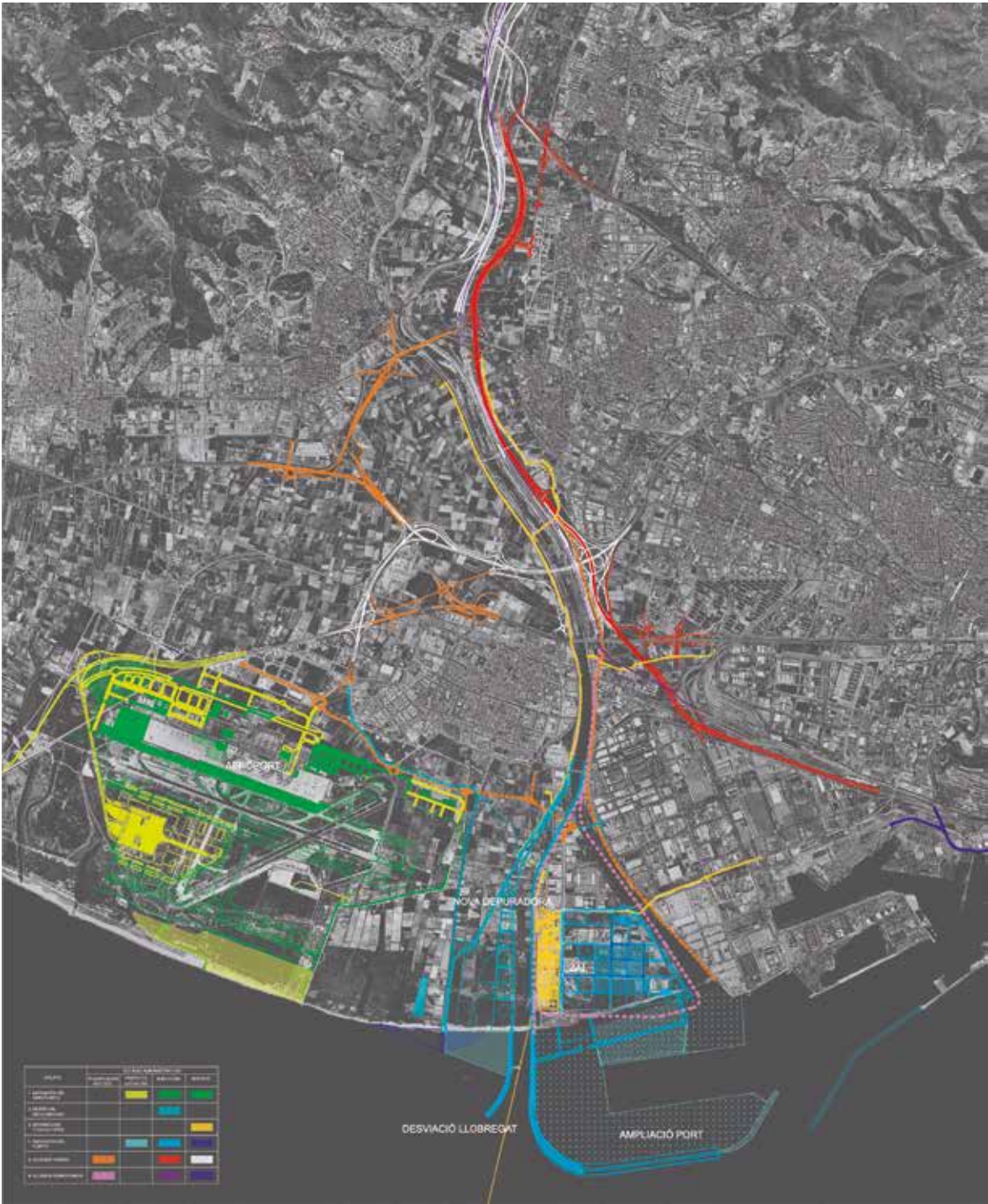


In the 1990s a comprehensive transformation process was started in the whole area around the mouth of the river Llobregat by means of a series of actions coordinated and funded by the Spanish Government, the Government of Catalonia, Barcelona City Council and El Prat de Llobregat City Council. This concerted institutional effort, known generically as the Delta Plan, was materialised in a set of actions that included the expansion of the port and of the airport, the construction of new road and rail accesses to these two transport hubs, the diversion of the final section of the river Llobregat and the construction of a wastewater treatment plant for the southern half of Barcelona and the metropolitan area.

Barcelona Regional was Barcelona City Council's technical representative on the monitoring committees for the actions and participated extensively in the preparation of various projects, including: the development of the port's Logistics Activity Zone (ZAL), the proposal for the groundside of the airport (the future Airport City), the definition of the location of the airport's third runway (unblocking the project), the diversion of the river, the El Prat de Llobregat wastewater treatment plant, the integration of the "Pota Sud" access link into El Prat and discussions about the road and railway accesses to the port. Currently, Barcelona Regional is a member of the technical board for the environmental monitoring of Llobregat Delta infrastructure and maintains and updates databases on the service infrastructure in this vast area.

TAGS

Energy, Environmental Quality, Infrastructure,  
Littoral, Mobility, Territorial Strategy, Urban  
Development, Urban Metabolism, Water



INFRASTRUCTURE MAP





## ROAD AND RAIL ACCESSES TO THE PORT OF BARCELONA

CLIENTS Port of Barcelona, Barcelona City Council, L'Hospitalet de Llobregat City Council, El Prat de Llobregat City Council and Barcelona Metropolitan Area • PERIOD 2006—the present

The southern expansion of the Port of Barcelona made it necessary to execute road and rail accesses for goods entering and leaving the area made up of the port, the ZALs (Logistics Activity Zones) and the free trade zone industrial estate. The accessibility of this area must be guaranteed by constructing new accesses to enable communication with the rest of the metropolitan region and beyond. Since 2006, Barcelona Regional has been monitoring the road and rail accesses, acting as the technical liaison with the Ministry of Development and other competent administrations and agents. This monitoring has included the analysis of construction projects, the preparation of alternative road and rail proposals, the study of provisional accesses, the compatibility between the existing services and the various infrastructure elements and terminals, and the study of the connection between the two sides of the old Llobregat river bed, among others.





LLOBREGAT DELTA STRATEGY

CLIENTS Barcelona City Council, L'Hospitalet de Llobregat City Council and El Prat de Llobregat City Council  
PERIOD 2014—the present • AREA 4,000 ha



DEGREE OF OCCUPATION    ■ Active    ■ Inactive    ■ Partial

The Llobregat Delta Strategy is the strategic planning instrument that the city councils of Barcelona, El Prat de Llobregat and L'Hospitalet de Llobregat have jointly agreed on with the various public operators of the area in order to achieve a more sustainable paradigm for this territory. The strategy represents a commitment to a new management model in which boosting economic activity to generate inclusive employment goes hand in hand with a reduction in the damage suffered by the delta and a decrease in the set of externalities produced by industrial establishments and mobility until it regains its status as an integral and habitable part of this territory.

The strategy, prepared by the Llobregat Delta Plan Strategic Office and Barcelona Regional, has a timeframe of 25 years and is rolled out through 30 projects that are ordered into pillars linked to the reactivation of spaces that generate activity and employment, sustainability, habitability, infrastructure and support actions, and governance and participation.



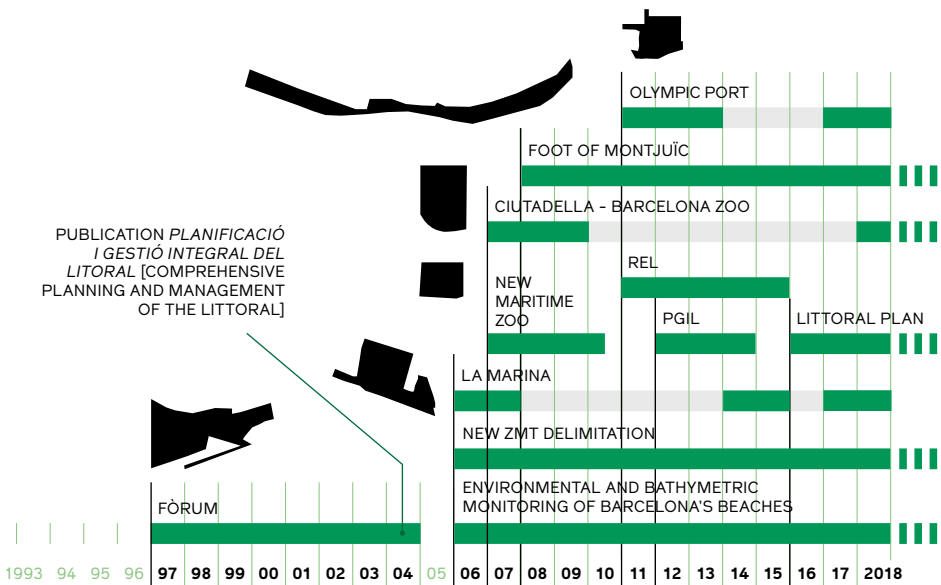
ECONOMIC ACTIVITY

- Administration and public services
- Wholesale and retail trade
- Construction and supplies
- Industry
- Leisure and restaurants
- Repairs
- Services
- Transport and warehousing



# LITTORAL

Over the last few decades, the metropolitan coast of Barcelona has undergone a dense urbanisation process. Today this territory configures a complex and fragile system in which the presence of the urban continuum and essential infrastructure for the operation of the metropolis coexists with natural elements like the beaches and other natural spaces. In this period, the city of Barcelona has transformed its seafront through various projects carried out in successive stages. Some of these projects have physically changed the coastline, such as the Olympic transformation, with the construction of the Olympic Port and the beaches, the Delta Plan, with the expansion of the port and the diversion of the river Llobregat, and the transformation of the Fòrum. Barcelona Regional has been involved in many of these coastal transformation projects since its establishment. Now, the agency's multidisciplinary nature allows it to respond to many of the problems arising on the metropolitan littoral on various levels, ranging from strategic planning to the formalisation of specific projects.



NEW ZMT DELIMITATION

CLIENT Barcelona City Council • PERIOD 2006—the present • AREA 5.2 linear km; 80 ha



The evolution of the coast of Barcelona and the opening up of the city to the sea by recovering the coastline made it necessary for there to be a new delimitation of the Maritime Terrestrial Zone (ZMT) that is more coherent with the current model of the city and its physical reality, monitoring the criteria marked by the Coasts Law. This new border makes it possible for Barcelona City Council to finish the recovery of the easternmost section of the coast, completing the promenade and the planning for the platform reclaimed from the sea during the Fòrum project. The modification extends from the Port of Barcelona, which falls under the competency of the Ministry of Development, to the municipal border with Sant Adrià de Besòs, conforming a coast section of some 5,200 metres. The modification of the new limits of the ZMT means that some 80 ha of public space will be created in the city without making any changes in use. Barcelona Regional has provided technical support throughout the process since 2006, when negotiations between Barcelona City Council, the Government of Catalonia and the Ministry of the Environment started.



PUBLICATION *PLANIFICACIÓ I GESTIÓ INTEGRAL DEL LITORAL. EINES, ESTRATÈGIES I BONES PRÀCTIQUES* [COMPREHENSIVE PLANNING AND MANAGEMENT OF THE LITTORAL. TOOLS, STRATEGIES AND GOOD PRACTICES]

CLIENT Barcelona Provincial Council • PERIOD 2004



The coast occupies a 115 km strip of the territory of the province of Barcelona and is home to half of its population. The protection of this space is important to prevent its environmental degradation, but at the same time it is necessary to reach a consensus on how best to manage its development without spoiling it. The aim of this book, which is structured into ten chapters, is to ensure that this is the case and includes theoretical and practical cases on the planning, improvement, promotion and recovery of the coast that recount the experiences of the various municipalities and present the ideas of professionals, public administration managers and university experts.

AUTHORS Various  
PUBLISHER Barcelona Provincial Council  
EDITION Barcelona, 2004  
ISBN 84-7794-882-8  
LANGUAGE Catalan



ENVIRONMENTAL AND BATHYMETRIC MONITORING OF BARCELONA'S BEACHES

CLIENT Barcelona City Council • PERIOD 2006—the present • AREA 5 linear km

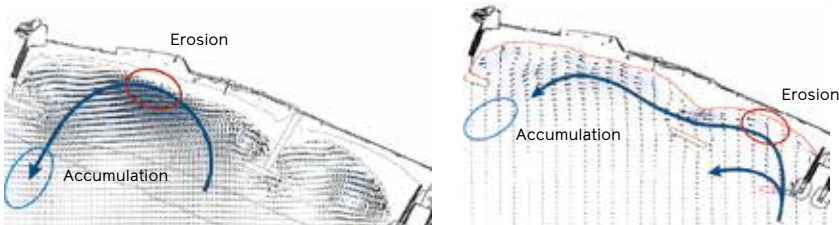
Since 2006 Barcelona Regional has been undertaking bathymetric and environmental monitoring on the work carried out by the Ministry of Development (from 2006 to 2012) to improve the stability of Barcelona's beaches. This monitoring provides data about erosion, accretion and the dry beach surface area, which makes it possible to cast a critical look at the actions that have been undertaken, make a more accurate diagnosis of their operation and collect new proposals to solve current and future problems. Moreover, the environmental data have been used to monitor the quality of the bathing water and the seabed.



COMPREHENSIVE MANAGEMENT PLAN FOR THE LITTORAL OF BARCELONA (PGIL)

CLIENT Barcelona City Council • PERIOD 2012—2014 • AREA 5 linear km

The competences of three administrations converge in the management of Barcelona's coast: the Spanish government, the Government of Catalonia and Barcelona City Council. This results in the involvement of more than 20 agents with differing degrees of responsibility and functions. However, everyday management activities and the coordination of the various agents are undertaken by Barcelona City Council. Barcelona Regional drafted the Comprehensive Management Plan for the Coast of Barcelona in response to the municipal aim of improving management between agents with coastal responsibilities with the objective of increasing the quality of this public space in the city. The plan diagnoses the current situation and takes into account all the agents, the various management areas and the specific actions assumed by each agent. In order to improve their management a number of guidelines are proposed which, based on the existing work dynamics and responsibilities, aim to optimise the resources and facilitate coordination between the three administrations involved.



STRATEGIC REFLECTION OF THE LITTORAL (REL)

CLIENT Barcelona City Council • PERIOD 2011—2015 • AREA 38 linear km

The metropolitan coast of Barcelona extends beyond the limits of the city to the other side of the rivers, from the massif at El Garraf to the cliffs at Montgat. It is a natural plain of 38 km of littoral that encompasses 8 municipalities, from Castelldefels to Badalona, providing a home for more than 2 million people. Barcelona Regional's participation in a diversity of projects along the metropolitan littoral has allowed it to generate extensive knowledge about this territory.

The Strategic Reflection of the Littoral arose from the need to understand the metropolitan coast as a whole by creating a picture based on the analysis of multiple layers of interaction (spatial, social, environmental, economic, historic, legal, etc.), and in accordance with various relationship models (territorial/metropolitan, functional and intervention). Its objective is threefold: understand its dynamics and its functional complexity, and detect its weaknesses and opportunities in order to finally define specific strategic lines and actions to improve the operation of the entire coast.

1



TAGS

Environment, Environmental Quality, Landscape,  
Littoral, Mobility, Public Space, Territorial Strategy,  
Tourism, Urban Development, Water

2

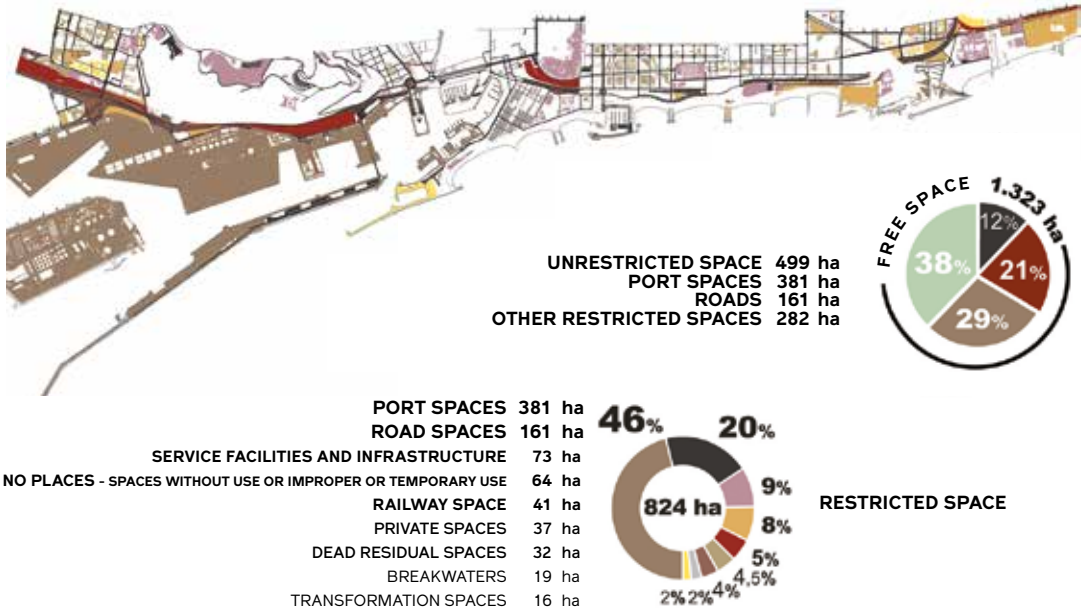




LITTORAL PLAN  
STRATEGIC PLAN OF THE CITY'S LITTORAL SPACES

CLIENT Barcelona City Council • PERIOD 2016-the present • AREA 15 linear km

In recent years Barcelona has executed major projects to open up the city to the sea that have transformed Barcelona's coast into an iconic element with a first-rate image as a commercial and tourist attraction. However, the coastal transformation model today shows symptoms of exhaustion due, among other things, to the economic model imposed on the coast, the tendency towards socio-spatial segregation and the existence of gentrification dynamics, the loss of activities traditionally associated with the sea and the implementation of private uses in public spaces. Moreover, there has never been a joint vision for the whole of city's seafront and previous interventions have left spaces that need to be reconsidered and integrated.



The main objective of the strategic plan for the city's coastal spaces, or Littoral Plan, is for the city to reclaim the seafront as a quality space that is open to the entire public for their enjoyment, in consensus with all the agents and with their involvement in defining a new future model for this area of the city. The Littoral Plan proposes an approach to the coast based on a comprehensive and communal vision that enables its strengths, weaknesses, opportunities and threats to be assessed and the undertaking of actions and projects to transform it into an area that is increasingly liveable, sustainable and established.

FÒRUM

CLIENTS Ministry of Development, Government of Catalonia, Barcelona City Council and Sant Adrià de Besòs City Council • PERIOD 1997–2004 • AREA 284 ha

The final section of Avinguda Diagonal close to the mouth of the river Besòs was remodelled thanks to, or with the excuse of, the 2004 Universal Forum of Cultures. A space that thus far had been marginal and degraded became a seafront park made up of a series of public spaces and facilities, such as the Fòrum building (auditorium and exhibition hall), parks, open-air auditoriums, beaches, a bathing zone, a large public space that covers the wastewater treatment plant, an ecopark and a marina. It continues to be used for large-scale cultural events and congresses.



PLANNING OF THE FÒRUM TERRITORY

CLIENT Barcelona City Council • PERIOD 1997–2004 • AREA 284 ha



The urban and environmental renovation of the Besòs littoral in the Fòrum Territory must be understood within the framework of the simultaneous renewal of La Sagrera and the 22@ district. All three constitute what was called the “Eastern Triangle”, a transformation strategy common to the entire east side of the city.

The interventions in the Fòrum Territory, beyond the 100 ha partially reclaimed from the sea for the main area of the Fòrum’s activities, affected a zone of 184 ha between Poblenou and the river Besòs. The project planned the spaces and uses of the coast in accordance with urban accessibility, continuity and integration criteria, and took into account the impact on the environment and the landscape. The aim was to foster housing, leisure, facilities and economic activity, developing a system of free spaces for the city and contributing to the regeneration of the most degraded areas and neighbourhoods.

TAGS

Energy, Environmental Quality, Infrastructure, Landscape, Littoral, Mobility, Public Space, Urban Development, Urban Projects, Urban Metabolism, Water

2



This operation allowed the city to grow from Rambla de Prim to the river and improved its infrastructure facilities, such as the roof and introduction of the secondary wastewater treatment, the complete renovation of the wastewater treatment plant, the creation of a heating and cooling system for the buildings of the Fòrum and of the 22@ district, and the transformation of the power stations into combined cycle power plants, which are much more energy efficient. At the same time, the city was opened up to the sea, which also generated an urban hub that incorporated the Convention Centre, the Natural Science Museum of Barcelona, hotels and tertiary sector and technological areas, in addition to housing. This area is linked to two beach areas and the Fòrum marina.

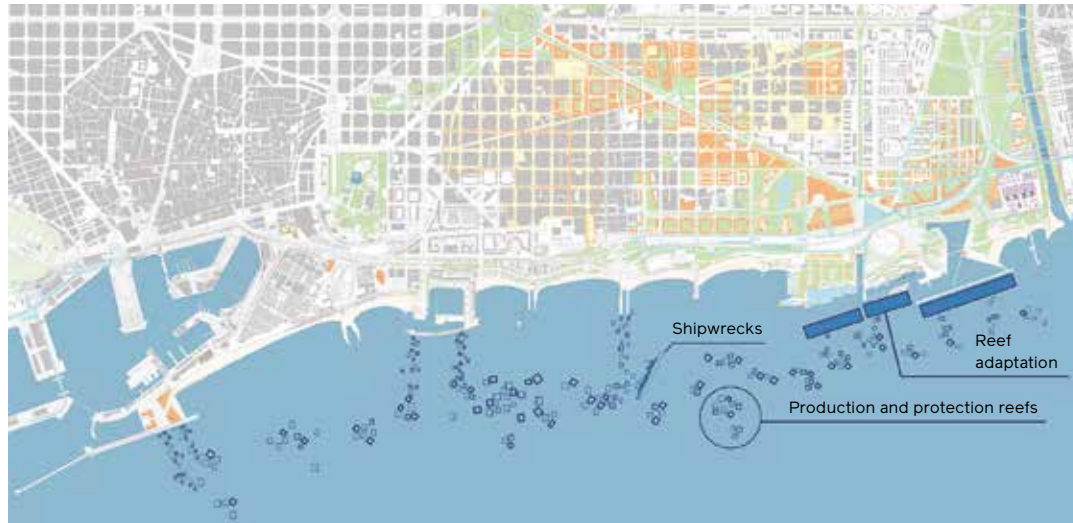




## PARC D'ESCULLS [REEF PARK]

CLIENT **Barcelona City Council** • PERIOD **2003–2004** • AREA **10 km<sup>2</sup>**

The Parc d'Escullis is a space artificially created on the seabed off the beaches of Barcelona, between the new mouth of the port and La Mar Bella beach. The artificial reefs are structures designed to facilitate the recovery of biodiversity on the seabed of Barcelona's coastline, which has been severely affected by the contamination arising from the urbanisation and intensive use of the seafront.



It is one of the world's largest and densest artificial reef parks in an urban coastal zone. The reefs attract and provide shelter for marine species that, thanks to the reduction of pollution in the coastal waters, are repopulating the coast. The park is made up of five zones with a total of 359 structures, located at depths of 18 to 25 metres. Of these five zones, four are reserved solely for systems designed to recover the seabed and one, the most easterly, is accessible for scuba diving.



## TAGS

## OBJECTIVE

### Design

196

Biodiversity, Environment,  
Environmental Quality, Littoral, Water

CLIENT **Barcelona City Council** • PERIOD **2004–2008**

In the initial phase of Barcelona's urban transformation, just after Spain's return to democracy, full trust was placed in the positive effects that the construction of new squares would bring about. The more than 140 urban spaces that were built over a seven-year period (from 1981 to 1998) clearly contributed to a powerful renewal of Barcelona's urban landscape and also to the recovery of its urban identity.

The transformation of the urban space as a consequence of the new squares, even though it was very efficient, did not guarantee the modernisation of urban structures. A larger scale of new urban projects and infrastructure interventions was necessary for this modernisation process. The Barcelona Olympic project, in addition to meeting the event's sporting requirements, was the catalyst for a major urban project of much grander proportions than previous efforts that was capable of triggering a global urban transformation process.



The urban effects of the Olympic project did not end with the 1992 Olympic Games. On the contrary, Barcelona's international positioning as a consequence of the success of the Olympic event, the construction of major cultural infrastructures — the National Art Museum of Catalonia (MNAC), L'Auditori, the National Theatre of Catalonia, the Barcelona Museum of Contemporary Art, etc. — and the conversion of the historic commercial port into an urban space transformed Barcelona into a first-rate tourist destination, with the tourism industry, which had previously been insufficient, now accounting for 15% of the city's GDP.

But Barcelona had started to suffer the effects of the economic crisis and industrial relocation before the Olympic project. Although the boost in tourism improved the economic situation, it was necessary to restructure the entire productive geography in order to successfully move from an industrial economy to a new tertiary economy. From the urban development perspective, new urban projects designed to foster tertiarisation should be located in areas set clearly apart from the deltas of the rivers Llobregat and Besòs. All these questions are explained in the exhibition "Barcelona in Progress", sponsored by Barcelona City Council and conceived by Barcelona Regional for the 2004 Forum of Cultures, which was subsequently also exhibited at Mendrisio (Switzerland) and New York in 2006, and Moscow in 2008.

## TAGS

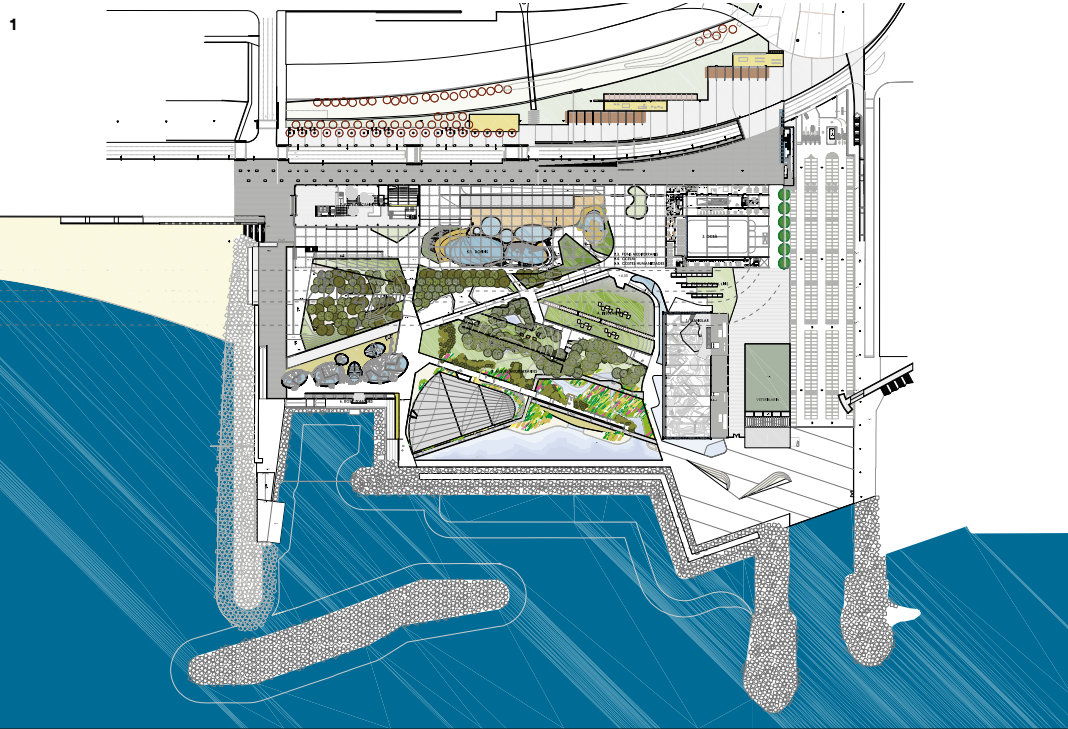
OBJECTIVE  
Communicate

197

Infrastructure, Littoral, Mobility,  
Public Space, Urban Development,  
Urban Projects, Urban Strategy

# NEW BARCELONA MARITIME ZOO

CLIENT Barcelona City Council • PERIOD 2007–2010 • AREA 9.6 ha



The New Maritime Zoo of Barcelona was conceived with the idea of educating the public with regard to marine ecosystems and coastal biomes, via an educational space into which the various zoological facilities are organised. The project was located on the new platform on the Besòs seafront. The proposal concentrated the main buildings in the upper north-western zone, along 350 m of coast next to the Ronda Litoral, and to a lesser degree over the north-eastern end of the plot in the area that borders the Prim collector. This layout on Avinguda del Litoral also offered cost and resource optimisation, given that the large tanks and buildings would mainly be located on solid ground.

It was conceived as a coherent space for zoological facilities related to the oceans and coastal biomes. At the Maritime Zoo, water would be the key element, acting as a border between two very complex systems: the terrestrial and marine ecosystems. The representation of various types of coastal spaces was the connecting tissue between the biomes, depicting the land-sea interface in areas such as Mediterranean wetlands, mangroves and dune coastal ecosystems.





# OLYMPIC PORT

The Olympic Port was built for the 1992 Barcelona Olympic Games to host the sailing competitions. Framed within a historic moment of the city's growth and transformation, it has always been geared towards sport and leisure activities, which resulted in the construction of the Municipal Sailing Centre and in the opening of numerous restaurants, bars and night clubs. The port is managed by the Government of Catalonia Directorate-General for Ports, Airports and Coasts and its concession holders are Barcelona City Council and the management company Port Olímpic de Barcelona SA (POBASA).

## STUDY OF THE ADAPTATION OF USES AND THEIR OPERATION

CLIENT Barcelona City Council • PERIOD 2012–2014 • AREA 16 ha



The immediate success of the Olympic Port meant that many of the concession holders started to rent out their premises. Simultaneously, the authorisation of recreational and musical use for the premises on the Moll de Mestral established in the 2006 Uses Plan favoured the opening of music bars and clubs, which gradually forced out restaurants and other businesses until they had colonised the entire Mestral quay. Following this trend, in the last decade the port has evolved towards a

model dedicated to nightlife and restaurants, and also to tourism. This specialisation has ended up attracting other business activities like the rental of sail lockers and vessels as tourist accommodation, and has led to significant safety and security issues and complaints from residents at night. The coexistence problems inherent to this model in the port are exacerbated by administrative chaos in relation to the management of the port, resulting in premises having two different licences for different activities, an imbalance in the number of premises and terraces, and the difficulties encountered by POBASA in relation to enforcing companies' compliance with the regulations.

This study prepared a diagnosis on the current state of the port, how it is related to its immediate environment and what role it plays on the coastline. A series of proposals was presented with the aim of recovering its values and singularity as a public space, increasing its social and economic returns and improving its state of conservation and security.

# MASTER AND STRATEGIC PLAN

CLIENT Barcelona City Council • PERIOD 2017–2018 • AREA 16 ha



The end of the concession of the Olympic Port in 2020 and the delegation of the Government of Catalonia's competencies to the City Council represent two major opportunities to rethink the port's development and management model.

Given that over the last 25 years the Olympic Port has consolidated its position as a space for restaurants and nightlife with poor accessibility and connectivity, in the eyes of the public it has lost the essence of its original function as a port. It is, therefore, necessary to recover the Olympic Port as a port space for the city and its citizens, a public space that is in contact with the sea where pleasure boating and water sports form part of the city's range of sport and leisure activities. In short, a sea area dedicated to the sea. In this sense, the Olympic Port remodelling proposal is based on a number of major objectives for which various actions will subsequently be specified: the definition of a new uses and activities model, the comprehensive remodelling of the public space and the improvement of the port infrastructure.

It should be highlighted that the Olympic Port Strategic Master Plan is not an urban development proposal, it is a planning document used by Barcelona City Council to define policies and strategies for the development of the Olympic Port's infrastructure and port services. The proposals it contains are strategic in nature and in no case executive. The definition of the various proposed actions will only allow the estimation of their viability from the economic, functional and environmental perspectives. Consequently, it is a reference document that will guide the drafting of the necessary urban development and executive models. The area affected by the Strategic Master Plan is the Olympic Port and its surrounding spaces.

# CIUTADELLA



Ciutadella Park is Barcelona's second largest park, after Montjuïc. Its significant historic, scientific and cultural legacy makes it probably the best known and busiest of Barcelona's 15 historic parks. The park's surface area of 31 ha is currently divided into 14 ha for Barcelona Zoo and 17 ha for the park itself.

The area surrounding Ciutadella, due to its history and the confluence of public and private institutions, has over the years attracted a diversity of knowledge, ranging from university education to research centres and Barcelona Zoo. The agents that surround Ciutadella Park have on several occasions submitted proposals designed to agglutinate the potential that these institutions represent and set out a strategy for the park that pivots on science and knowledge and that reconsiders the current relationships between the park and its environment.

The park has certain problems that need to be faced in the short term, such as the degradation of various protected buildings, the protection of monumental green spaces, and the relationship with the surrounding areas. At the same time, Barcelona Zoo is immersed in the definition of a new model that is committed to conservation, research and outreach. This situation engenders various challenges and opportunities, both in terms of the interior planning of the park and its relationship with the surrounding neighbourhoods, which Barcelona City Council has been studying for years.

# BARCELONA ZOO MASTER PLAN

CLIENTS Barcelona City Council, Barcelona de Serveis Municipals, SA (BSM)  
PERIOD 2007–2014 • AREA 14 ha

The Zoo Master Plan had the main aim of modernising the historic urban zoo and adapting it to current needs within a mid- to long-term timeframe (15-20 years). The plan proposed the need to improve the wellbeing of the animals and strengthen the zoo's links to society, focusing on far-reaching aspects like the preservation of biodiversity, environmental education and biology immersion, in addition to improving the permeability and integration of the park as a whole with the neighbouring areas.

The plan proposed the gradual comprehensive renovation of the obsolete facilities of a zoological park with more than 120 years of history, improving the social conditions of the animals and their habitats. This intervention also constituted an improvement in Ciutadella Park's relationship with the city. The master plan proposed the establishment of the strategic lines of the zoological collection, the new territorial implementation of the facilities in accordance with the biomes and the various phases of comprehensive renovation that were necessary in accordance with the development of the Zoological Programme and its priorities.



ELEPHANTS AREA

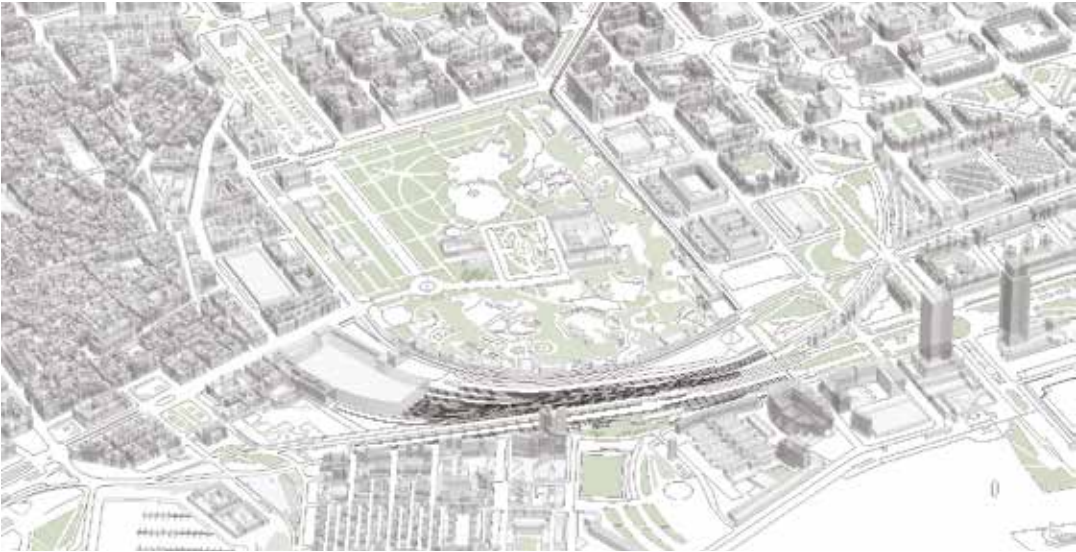


A preliminary project for a butterfly house to be located in the park's glasshouse was also prepared. This facility was proposed outside of the zoo premises in order to create an additional zoological attraction for Ciutadella Park. Its aim was to restore a major element of the city's architectural heritage, establishing synergies with the museum facilities around the glasshouse.



TOWARDS A MASTER PLAN FOR CIUTADELLA PARK

CLIENT Barcelona City Council • PERIOD 2018—the present • AREA 31 ha



A wealth of documents has been generated to reactivate Ciutadella Park. Many of them have been led by Barcelona City Council, but other public agents have also produced their own documents, covering different spaces and subjects such as proposals for the zoo, opening and connection projects, mobility projects and proposals to rehabilitate facilities for new uses or improve existing ones.

Currently, Barcelona Regional is providing all the technical services necessary for the preparation of the strategic document Towards a Master Plan for Ciutadella Park, led by Barcelona City Council's Urban Model Unit. This document contains the city's plans and the measures to apply them on the scale of the park, such as: the Science Plan, the Green and Biodiversity Plan, the Climate Plan, the Alternative Water Resources Plan, the Strategic Zoo Plan and government measures to foster ecology, the playable city, social rights, the economy and cultural innovation. At the same time, this document includes the concerns that local, research, and educational bodies in or immediately surrounding the park expressed in work sessions held for this purpose.

Within the framework of this strategic document, which is still in the drafting process, a thematic diagnosis has been prepared to focus on the main problems and challenges in the park and specific studies have been carried out to obtain new data. Based on this, work is being carried out on a document that will submit proposals and projects in the short, mid and long terms, organised into four strategic lines: Ciutadella open to the sea, the Ciutadella that connects, a 21st-century urban park and the Ciutadella of knowledge.

# FOOT OF MONTJUÏC

In the late 1980s Barcelona recovered its seafront and established a new relationship with the sea, except where the port and the city meet, which has the additional complexity of the topographical configuration of the foot of Montjuïc. At this point, the relationship runs aground and finds no continuity. Two infrastructure projects, the new railway accesses to the port and the side streets of the Ronda Litoral make it possible to rethink this relationship between the port and the city.

## PROPOSALS FOR THE RONDA LITORAL AT THE FOOT OF MONTJUÏC

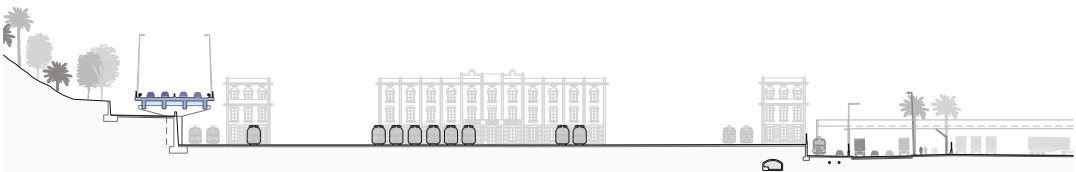
CLIENT Barcelona City Council • PERIOD 2006—the present • AREA 80 ha

Barcelona Regional prepared a series of reports, proposals and declarations for Barcelona City Council from 2008 to 2018 with the aim of representing the interests of the city in relation to the proposals put forward by the Ministry of Development concerning the expansion of the Ronda Litoral (B-10) in the section from the free trade zone to El Morrot.

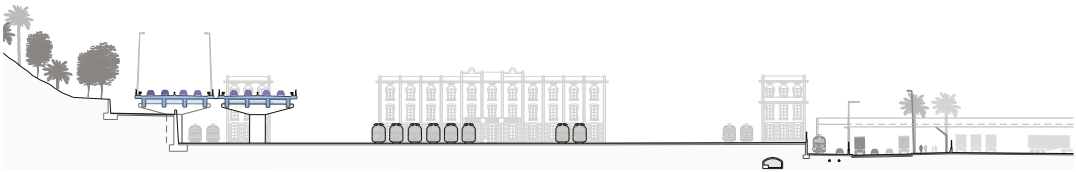
From 2006 to 2012 the Ministry of Development presented a study for the expansion of the Ronda Litoral by means of a new viaduct next to the current one, following the original plan made when it was constructed (1972-1981), which would enable there to be four lanes in each direction on each viaduct (4+4). This configuration made it compatible with the expansion of the Ronda Litoral over the service tracks of El Morrot railway terminal.

Barcelona City Council's reply, studied by Barcelona Regional, was the proposal of a system based on a 2+2 trunk road and city side lanes (also 2+2) to enable an additional link to the city centre and facilitate access to the port. Subsequently, in 2014 and 2015, once the possible transfer of El Morrot station had been proposed, Barcelona Regional studied the route of the new trunk of the Ronda Litoral on the level of the port, on the land of the current railway yard. The current viaduct is reserved for the city side lanes.

Currently (2018) a study is being conducted on how to improve continuity between the new neighbourhood of La Marina and the city centre, implementing active mobility options and proposing a new urban connection infrastructure paradigm that at the same time resolves the metropolitan and regional connection that is necessary between the Llobregat delta and El Maresme.



CURRENT



MINISTRY PROPOSAL 1



MINISTRY PROPOSAL 2



CITY COUNCIL PROPOSAL A



CITY COUNCIL PROPOSALS B AND C



EL MORROT WATERFRONT

CLIENT Barcelona City Council • PERIOD 2011—2015 • AREA 46.6 ha

After more than 30 years spent transforming Barcelona's coastline, a new opportunity for regeneration is opened up to the east in the El Morrot area. In this space to the west of Port Vell (the old harbour), a series of initiatives and projects have been proposed in relation to the port and transport infrastructures (expansion of the Ronda Litoral and new road and rail accesses from the port). These actions enable the replanning of the relationship between the city and port as a meeting point of the urban area and the port fabric. New formal and programmatic solutions are being explored to define the framework of integration between the port and the city that do not propose the replacement of port activities, but rather complex, hybrid uses.

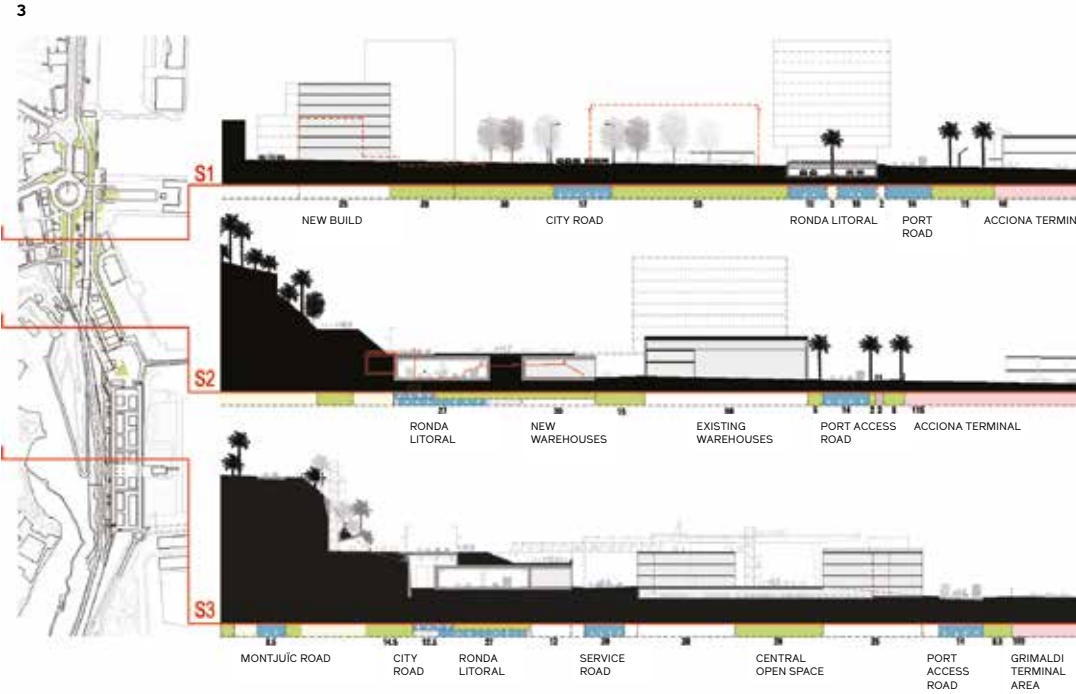
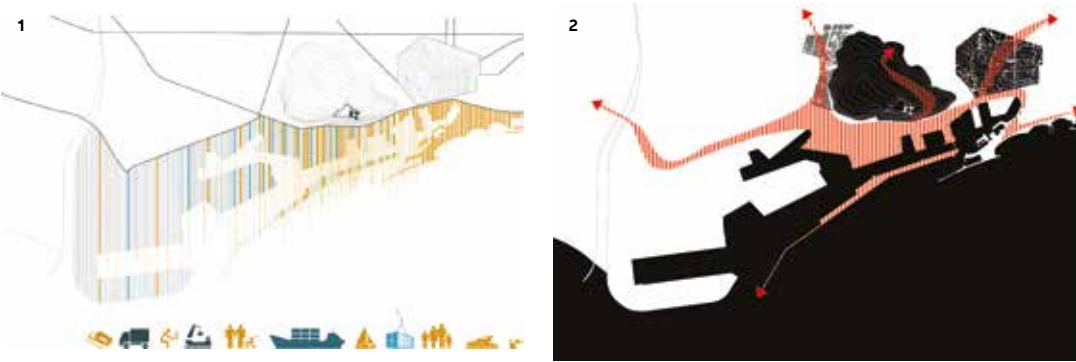


The future construction of the new rail accesses linked to the port expansion project will engender, in the coming years, the redefinition of Barcelona's goods transport railway network. These new accesses facilitate load balancing and railway operations next to the new Llobregat and free up the current El Morrot container terminal, which will become obsolete, small and poorly located with respect to the new terminals.

The resulting freed-up space, which is very close to the city, offers the possibility of establishing a new relationship between the port and the city on its most urban seafront. In this transformation of the El Morrot area, in the Coast-El Morrot project, the city, the urban fabric, roads and public spaces will take over this area and, in front of Montjuïc, connect Avinguda Paral·lel to Passeig de la Zona Franca and El Poble-sec to La Marina del Prat Vermell.

TAGS

Housing, Infrastructure, Landscape, Littoral, Mobility, Public Space, Urban Development, Urban Projects, Urban Strategy



1. DIAGRAM. EL MORROT AS A HYBRID USES SPACE  
2. DIAGRAM. EL MORROT AS AN EMBLEMATIC SPACE  
3. SECTIONS OF THE PROPOSAL

# LA MARINA

The urban development of La Marina, which started in 2006, proposes the transformation of 75 ha of industrial land to construct a new mixed residential neighbourhood similar to that of certain areas of the Eixample district (73.3% residential / 26.6% non-residential). It is framed within the three major urban development operations that the city of Barcelona is currently developing, along with La Sagrera and the 22@ district.

It plans the construction of more than a million square metres of property for 10,865 homes (of which 50% will be official semi-protected social housing) and a range of economic activities, providing homes for around 28,000 inhabitants and some 8,000 new jobs.

Barcelona Regional worked on the drafting of the various documents complementing the Amendment to the General Metropolitan Plan (MPGM) of La Marina del Prat Vermell approved in 2006, which are related to mobility, the environment, economic viability and sustainability, and drafted the Special Infrastructure Plan (PEI). Recently, more than 10 years after approval, for a number of different reasons it has proved necessary to globally review the various documents to produce another MPGM with the aim of fostering its development.



# LA MARINA SPECIAL INFRASTRUCTURE PLAN

CLIENT Barcelona City Council • PERIOD 2006—2011 • AREA 75 ha

Due to its size and degree of complexity and the aim of facilitating its development, the MPGM of La Marina del Prat Vermell delimits 14 independent sectors to be developed through their corresponding urban improvement plans. The Special Infrastructure Plan was drafted to coordinate these 14 sectors, defining the main characteristics of the various infrastructure networks and the services to be implemented, in addition to undertaking the temporary economic programming of the priority actions and defining the urban development fees. The aim of this instrument was to enable the fair distribution of benefits and fees among the various delimited sectors.

In general terms, the plan defines the model and the type of the infrastructure elements, the implementation methods and the strategies to be followed for progressive roll-out in the territory. It contemplates accessibility systems, public spaces, waste treatment and cleaning, the water cycle and the energy and telecommunications systems.



CARRER DEL MOTORS SECTION

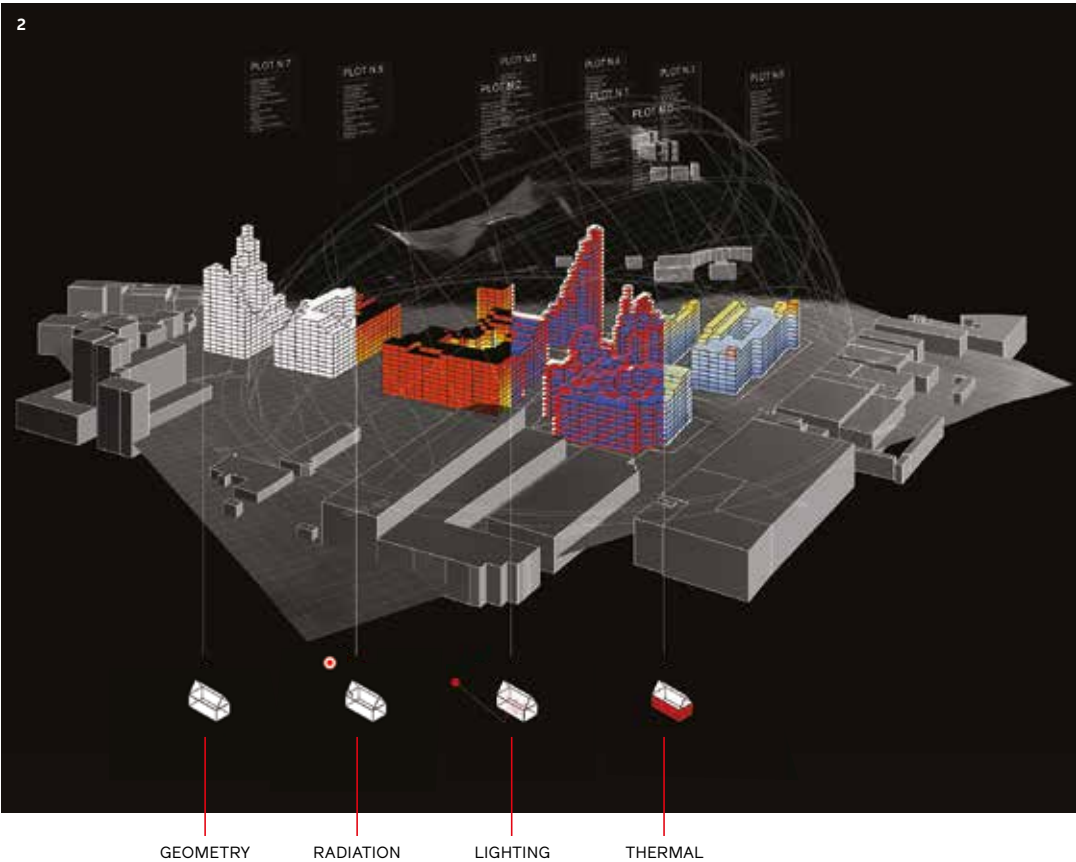
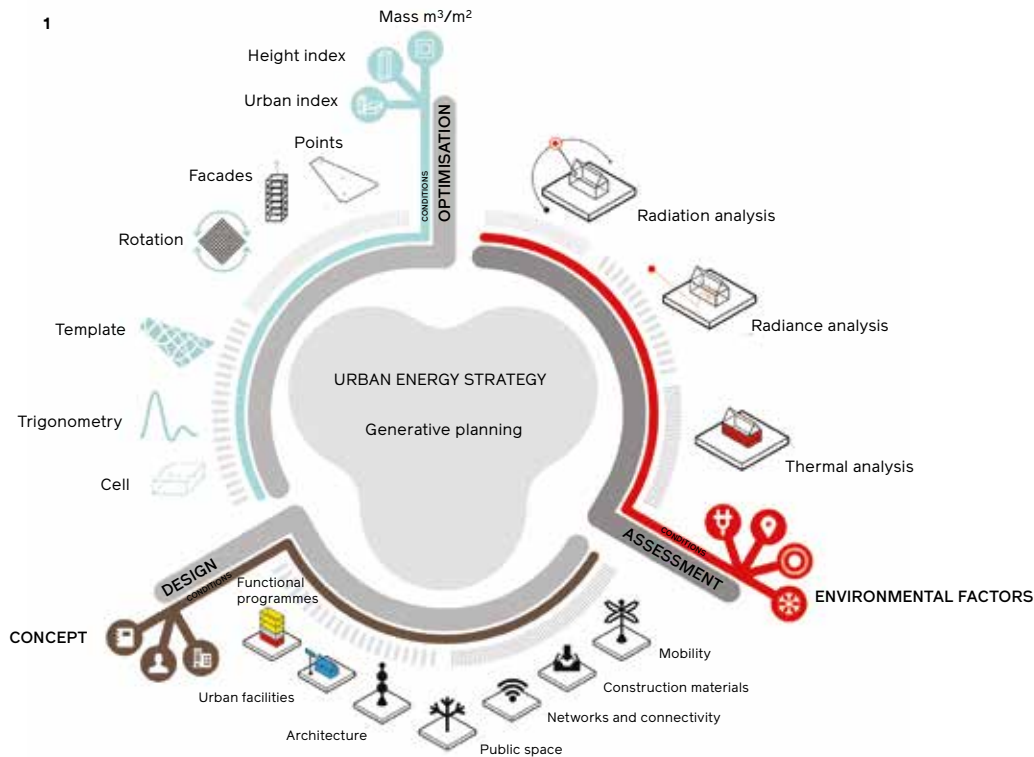


# LOW EMISSION BLOCK

CLIENT Barcelona City Council • PERIOD 2014—2015 • AREA 7.1 ha

This consists of developing a methodology and criteria for the planning design for a block in the neighbourhood of La Marina del Prat Vermell in the free trade zone (sector 12), which minimises its emissions and makes optimal use of the area's energy resources. Given that the objective is a design that achieves the maximum degree of energy self-sufficiency, optimisation is undertaken on three levels: urban development, building and housing. This study combines parametric design techniques, the constructive analysis of the buildings and the application of the best available technologies.

In the first phases of urban planning it is essential to incorporate new tools into the design of cities in order to minimise energy demands. In Sector 12 of La Marina del Prat Vermell parametric modelling tools have been used for the design of new urban zones with low energy demand. Based on urban development, buildability and environment condition parameters, a computational genomics process was undertaken to analyse and optimise aspects like radiation, lighting and heat demand using tools like *EnergyPlus* and *Radiance*.



The image above shows the results of the application of the methodology. From left to right it shows the geometry, the calculation of radiation on the facade, natural lighting in the buildings and the calculation of the heat demand per floor.

The results of the parametric design are combined in a multi-objective optimisation process to achieve a set of low-energy demand buildings that guarantee the best combination of minimum heat demand, maximum solar radiation on the facade and the maximisation of daylight inside the buildings. The urban development design improvement alternative was analysed in more detail with the aim of optimising the design of the buildings by applying the best building techniques and implementing the best available technologies to achieve a higher degree of self-sufficiency in the sector.

A STRATEGY FOR LA MARINA

CLIENT Barcelona City Council • PERIOD 2017–2018 • AREA 200 ha

More than 10 years have elapsed since the definitive approval of the Amendment to the General Metropolitan Plan (MPGM) of La Marina (2006). However, for various reasons, its development has been delayed with respect to the plans made at the time. In order to reactivate the transformation of this area, today it is essential to update the plan and adapt the proposed measures and interventions to current development challenges and parameters. At the same time, a variety of projects, mainly tertiary in nature, have been implemented in and around La Marina del Prat Vermell, transforming the area into a new hub of economic activity in the city of Barcelona and the metropolitan area. Some of these projects are at the core of Are@8 technological activities, the Plaça d'Europa-Gran Via developments, the BCN Fira District and the new Administrative Campus of the Government of Catalonia.



TAGS

OBJECTIVE  
Reflect

Climate Change, Energy, Environment,  
Environmental Quality, Housing, Landscape,  
Mobility, Urban Development, Urban Strategy

In this regard, alongside the updating of the plan, it is necessary to define a strategic instrument for the management of the process for the transformation of the La Marina area, that is, the territory formed by the administrative areas of La Marina del Prat Vermell and La Marina del Port, which must have an impact on the connection and integration of the area with its surroundings and foster cohesive social and spatial development. It must also propose a roadmap, for the mid to long term, to guarantee urban management in line with the reality of the territory in matters as fundamental as housing, the quality of urban spaces and the connectivity of the area. The fact is that, beyond the specific scope of the MPGM, the territory of La Marina still has many challenges to be resolved. These include the roll-out of public transport, the improvement of road connections for pedestrians and cyclists, the integration of the area with the natural spaces that surround it and energy efficiency (especially the possible connection to the climate control network).

The transformation of La Marina del Prat Vermell and of its whole area is one of the major projects that the city must undertake in the immediate future. Its development is long term and therefore the management and monitoring of its implementation within the framework of a strategic vision will be of vital importance.

2



HOUSING



ECONOMY AND EMPLOYMENT



CONNECTIVITY



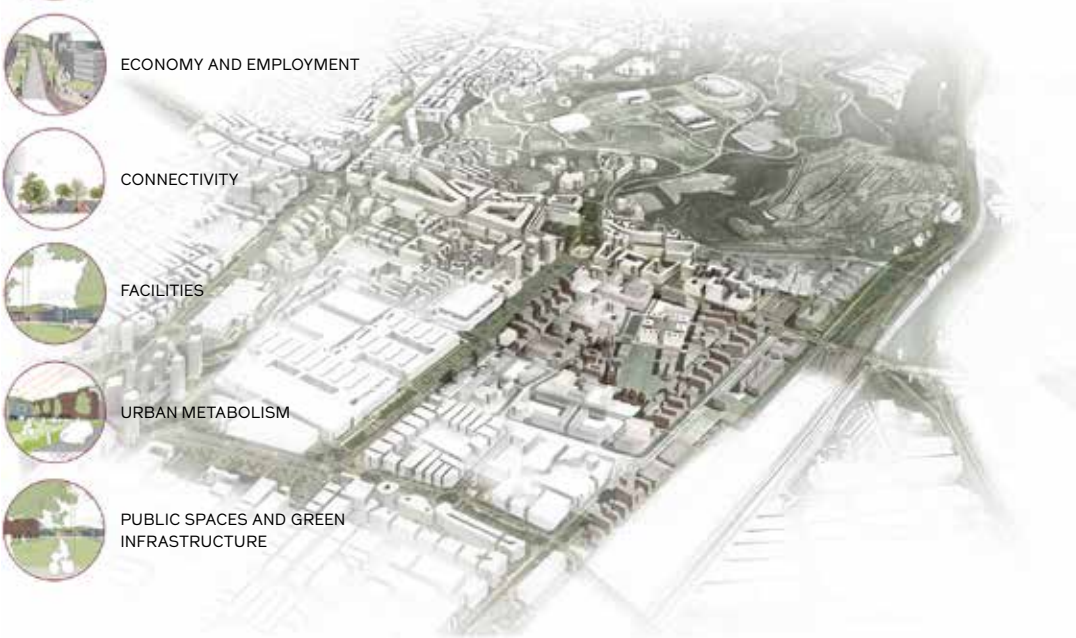
FACILITIES



URBAN METABOLISM



PUBLIC SPACES AND GREEN  
INFRASTRUCTURE

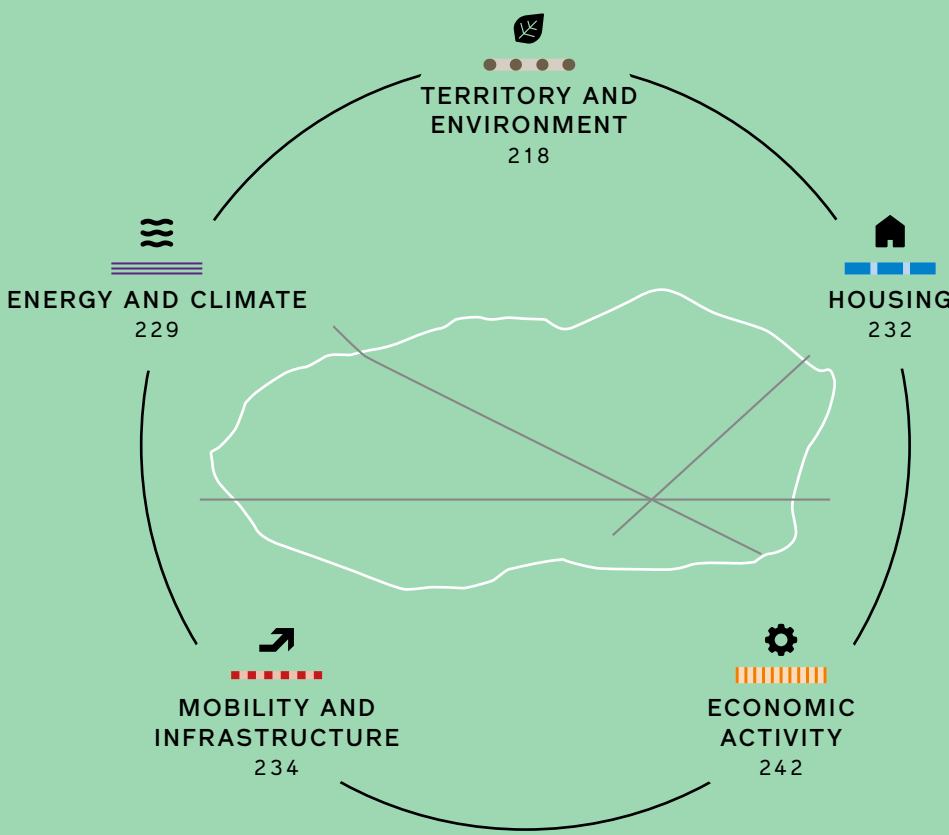


1. ORIENTATIVE ZONING MAP  
2. PILLARS OF ACTION OF THE STRATEGY



# WORKS

## EXTRA-RONDES



For Barcelona Regional (BR), the metropolitan dimension is not understood to be separate from the local reach and scale of the cities that form it. On the contrary, it is in that dimension where the cornerstones of many of the problems that these cities face are to be found.

In the same way as in the central areas, but with even more intensity, the metropolis is the superposition of various levels, which are inseparable due to the complex interactions established between them that equip it with its systemic nature. This is something that BR has always taken into account in its projects. And it is the reason why BR has always sought to equip itself with all the tools it needs to reinforce the knowledge and experience contributed by its technical teams.

The ongoing updating, starting in 1993, of a map of the whole metropolitan territory, beyond its administrative borders—from Sitges to Mataró and as far inland as El Papiol—not just with the aim of reflecting the current situation, but of including every transformation proposal, whether it be big or small, approved or simply proposed, public or private, is not an aseptic initiative. The graphic representation criteria and the various project and reproduction scales are not aseptic either. Its aims are clear: first, to gain a dynamic understanding of the current conditions of the area and, second, to have an instrument to test out analyses, reflections and proposals.

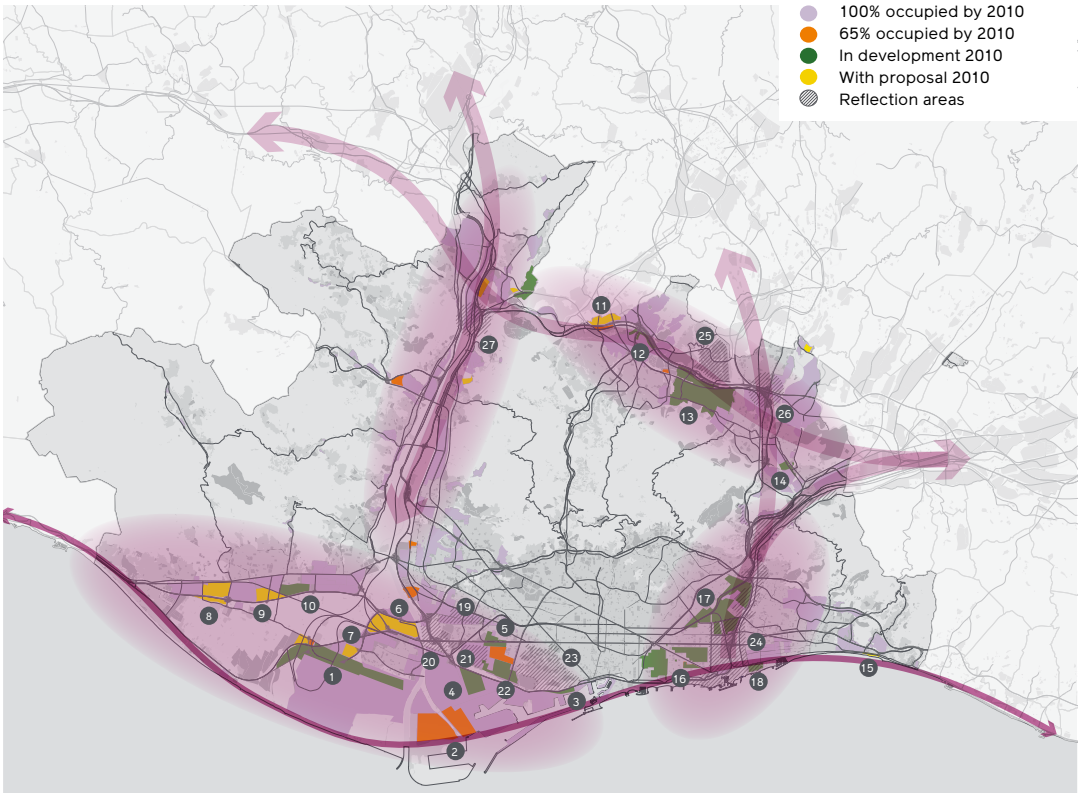
It is a map prepared with MicroStation, a software program used, since its very first version, by BR's technicians when they still worked at the Municipal Institute for Urban Development Promotion (IMPU). The intensive use of this tool is the reason behind BR's collaboration with Bentley Systems, the company that owns the program, on the development of special features for Spain. Similarly, from the initial versions of ARC/INFO for MS-DOS to the successive versions of ArcView and finally the latest versions of ArcGIS, BR has always equipped itself with the best available software in the Geographic Information System (GIS) field for its analyses and studies, producing maps and databases that are essential for numerous innovative policies. In the same spirit, in 2009 it equipped itself with urban air quality modelling software that some years later allowed Barcelona City Council to predict air quality three days in advance, which the public can consult on the municipal website.

These and other specific tools are behind almost all of the various metropolitan system projects that make up this section.

TERRITORY AND ENVIRONMENT

METROPOLITAN STRATEGIC REFLECTION (REM)

CLIENT Barcelona Metropolitan Area • PERIOD 2012–2015  
AREA Barcelona Metropolitan Area, 36 municipalities, 636 km²



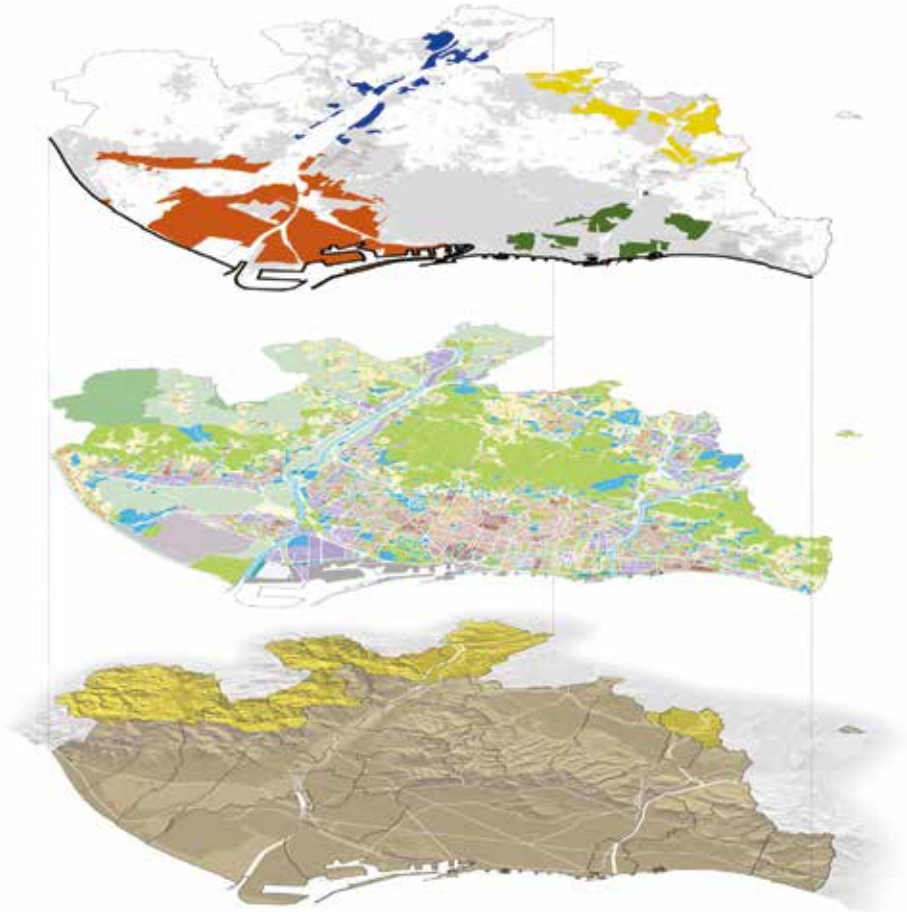
- |                                     |                                     |                                     |
|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Airport City                     | 10. La Marina                       | 19. L'H Cultural District           |
| 2. Logistics Activity Zone          | 11. Can Sant Joan                   | 20. Llobregat Park-Can Trbal-Biopol |
| 3. El Morrot Coast                  | 12. Vulpalleres                     | 21. Pedrosa-City Metropolitana      |
| 4. New free trade zone developments | 13. Parc de l'Alba                  | 22. La Marina del Prat Vermell      |
| 5. Plaça d'Europa                   | 14. Ripollet Park                   | 23. Illa Cultural (Montjuïc)        |
| 6. Centre Direccional-Prat Nord     | 15. Maritime Platform               | 24. Besòs area                      |
| 7. Mas Blau                         | 16. 22@                             | 25. UAB-Cerdanyola                  |
| 8. Els Jons                         | 17. La Sagrera and surrounding area | 26. Baricentro                      |
| 9. Can Alemany                      | 18. Besòs Power Stations            | 27. Nus del Papiol                  |

Reflection on the current situation of the Metropolitan territory from the urban development, environmental, socio-economic, mobility and infrastructure perspectives to determine the priority challenges to be developed in the future. The aim of the Metropolitan Strategic Reflection (REM) is to develop other metropolitan territory planning instruments and strategies. The document is structured into six thematic areas: social inclusion, sustainable economic development, environmental sustainability, efficient mobility, territorial cohesion and capital status and governance. Barcelona Regional has contributed to this priority definition and reflection process in conjunction with the AMB in relation to territory, mobility, infrastructure and environmental sustainability aspects.

1

2

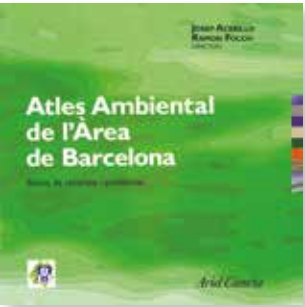
3





**PUBLICATION *ATLES AMBIENTAL DE L'ÀREA DE BARCELONA*  
[ENVIRONMENTAL ATLAS OF THE BARCELONA AREA]**

CLIENT Barcelona Metropolitan Area • PERIOD 2000  
AREA Barcelona Metropolitan Region, 3,236 km<sup>2</sup>

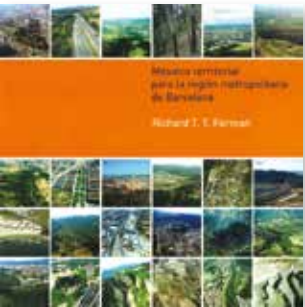


AUTHORS Josep A. Acebillo, Ramon Folch  
PUBLISHER Ariel Ciència  
EDITION Barcelona, 2000  
ISBN 84-344-8025-5  
LANGUAGE Catalan

*The Environmental Atlas of the Barcelona Area* was prepared based on a set of evaluations of environmental data on ecological virtues and ecological conflicts between the territory and the city. The publication collects reference texts and more than 200 maps to illustrate them, resulting from a multidisciplinary project conducted by more than 40 leading experts in environmental aspects, geology, risks, air quality, noise, soil contamination and many others, disseminating environmental knowledge of the territory of Barcelona to the public, describing the problems and also providing some solutions.

**PUBLICATION *MOSAICO TERRITORIAL PARA LA REGIÓN METROPOLITANA DE BARCELONA* [A TERRITORIAL MOSAIC FOR BARCELONA METROPOLITAN REGION]**

CLIENT Barcelona Metropolitan Area • PERIOD 2004



AUTHOR Richard T. T. Forman  
PUBLISHER Gustavo Gili  
EDITION Barcelona, 2004  
ISBN 84-252-1971-X  
LANGUAGE Spanish

The Harvard University professor Richard T. T. Forman is globally renowned as the father of landscape ecology. His land mosaic theory explains how the ecological functions established in a territory are of great importance to the future of a region. The author was commissioned by Barcelona Regional to apply his ecological principles to the Region of Barcelona and formulate a clear proposal for the entire territory. This publication has become an international benchmark due to the new methodology it adopts in the strategic planning of major metropolitan areas.

TAGS

Biodiversity, Cartography, Environment,  
Environmental Quality, Landscape,  
Territorial Strategy, Territory, Water

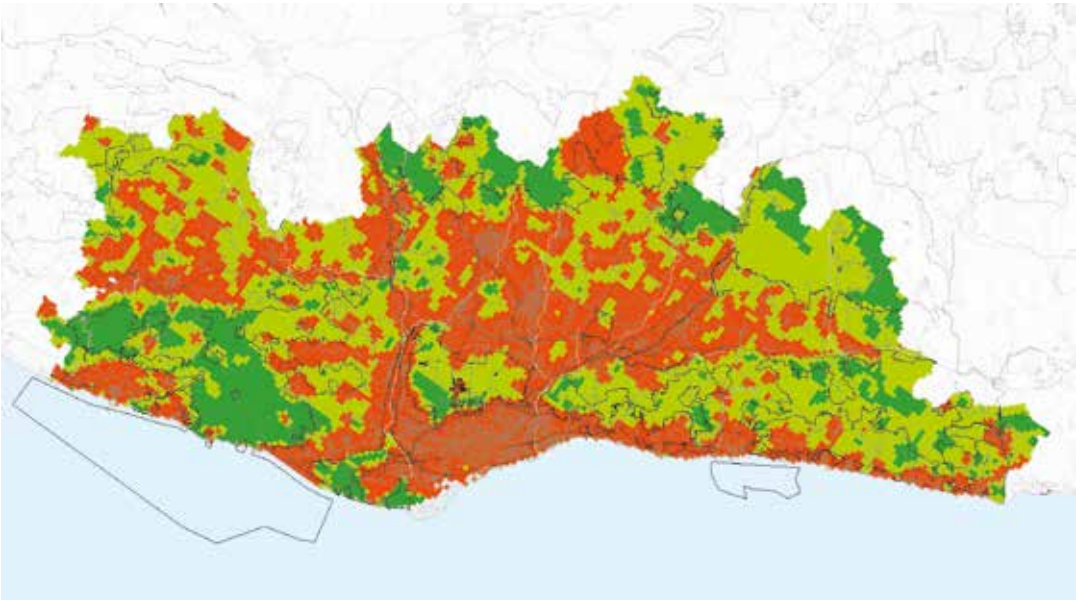
OBJECTIVE  
Reflect, Communicate

**ENVIRONMENTAL ASSESSMENT OF THE BARCELONA METROPOLITAN  
TERRITORIAL PLAN (PTMB)**

CLIENTS Institute for Territorial Studies (IET), Ministry of Territorial Policy and Public Works of the Government of Catalonia • PERIOD 2007–2010 • AREA Barcelona Metropolitan Region, 3,236 km<sup>2</sup>

The Partial Territorial Plan of the Barcelona Metropolitan Region (PTMB) is the territorial planning instrument that defines the 2026 horizon strategies for the urban settlement system, the infrastructure system (road and rail) and the open spaces system of the Barcelona Metropolitan Region. It configures the governing framework over which urban planning instruments are to be developed in this area.

The Managing Director of Barcelona Regional represented Barcelona City Council at the Technical Presentation of the Plan. BR was also responsible for all the environmental assessment work. Environmental assessments anticipate and prevent possible environmental problems associated with a given plan, given that they are applied in the initial preparation phases and throughout the entire plan drafting process. The Environmental Sustainability Report (ESR) is the technical document that assesses, from the environmental perspective, the proposals developed by the PTMB with respect to the three systems of open spaces, settlements and infrastructure.



SUMMARY OF SPACES OF NATURAL INTEREST

- Supramunicipal protected spaces
- Low natural interest
- Significant natural interest
- High natural interest

OBJECTIVE  
Observe, Reflect, Plan

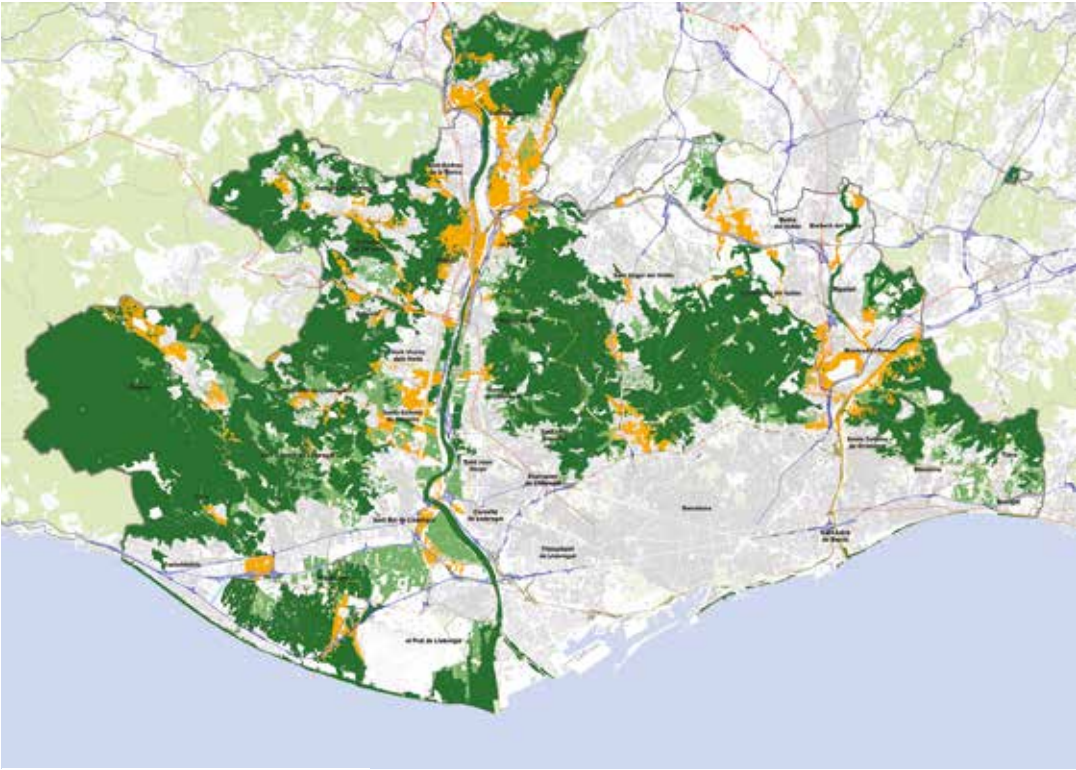
TAGS

Environment, Environmental Quality,  
Infrastructure, Landscape, Mobility,  
Territorial Strategy, Territory

## 2014-2020 AMB SUSTAINABILITY PLAN

CLIENT Barcelona Metropolitan Area • PERIOD 2012–2016  
AREA Barcelona Metropolitan Area, 36 municipalities, 636 km<sup>2</sup>

The AMB Environmental Sustainability Plan (PSAMB) is the framework instrument that defines the strategic lines to make progress towards metropolitan sustainability on three levels of action: the metropolitan territory, the services that the AMB provides to the 36 metropolitan municipalities and the environmental quality of the AMB's management. The plan is structured into six thematic pillars: territory, ecology and biodiversity, energy and climate change, sustainable mobility, means of production and consumption, and environmental health, and the common pillar of education for sustainability. For further information on the plan you can consult: <http://www.amb.cat/en/web/medi-ambient/sostenibilitat/pla-de-sostenibilitat>.



CRITICAL AREAS OF THE FUNCTIONAL ECOLOGICAL NETWORK

- Critical zones
- Continuous zones
- Core areas
- Areas of flora and fauna interest

TAGS

OBJECTIVE  
Observe, Reflect, Plan

222

Biodiversity, Climate Change, Energy,  
Environment, Environmental Quality,  
Mobility, Resilience, Territory, Water

## AMB PARK NETWORK BIODIVERSITY IMPROVEMENT PLAN

CLIENT Barcelona Metropolitan Area • PERIOD 2016–2018  
AREA Barcelona Metropolitan Area, 36 municipalities, 636 km<sup>2</sup>



One of the main conditioning factors of the parks in metropolitan areas is their location in highly anthropised environments where economic and social objectives have been historically prioritised to the detriment of ecological objectives. In recent decades, governments have made an effort to make urban uses compatible with the functionality of the ecosystems. In this line, the AMB is committed to management based on conservation and fostering the biodiversity of metropolitan parks and beaches, based on the fact that biodiversity is fundamental if ecosystems are to function correctly, overcome impacts and disturbances, and become more complex and capable of offering more ecosystemic services to the population.

With a view to making progress in the improvement of biodiversity in the network of parks, the plan's main objective is to establish strategic lines to improve biodiversity and the educational potential of the parks and beaches of Barcelona Metropolitan Area, striking a balance with the corresponding social values. At the same time, the plan also acts as a consultation tool for municipal technicians and other administrations, educational centres and the general public.

TAGS

OBJECTIVE  
Observe, Reflect, Plan

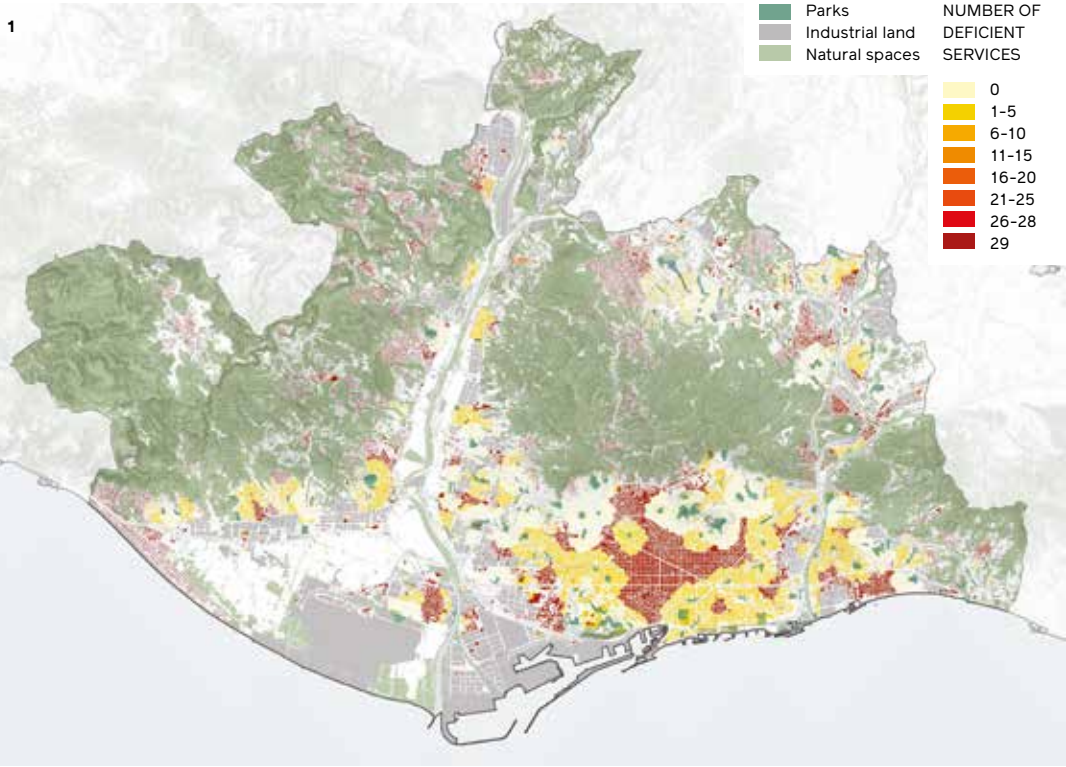
223

Biodiversity, Climate Change, Environment,  
Environmental Quality, Resilience



STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE METROPOLITAN URBAN DEVELOPMENT MASTER PLAN (PDU)

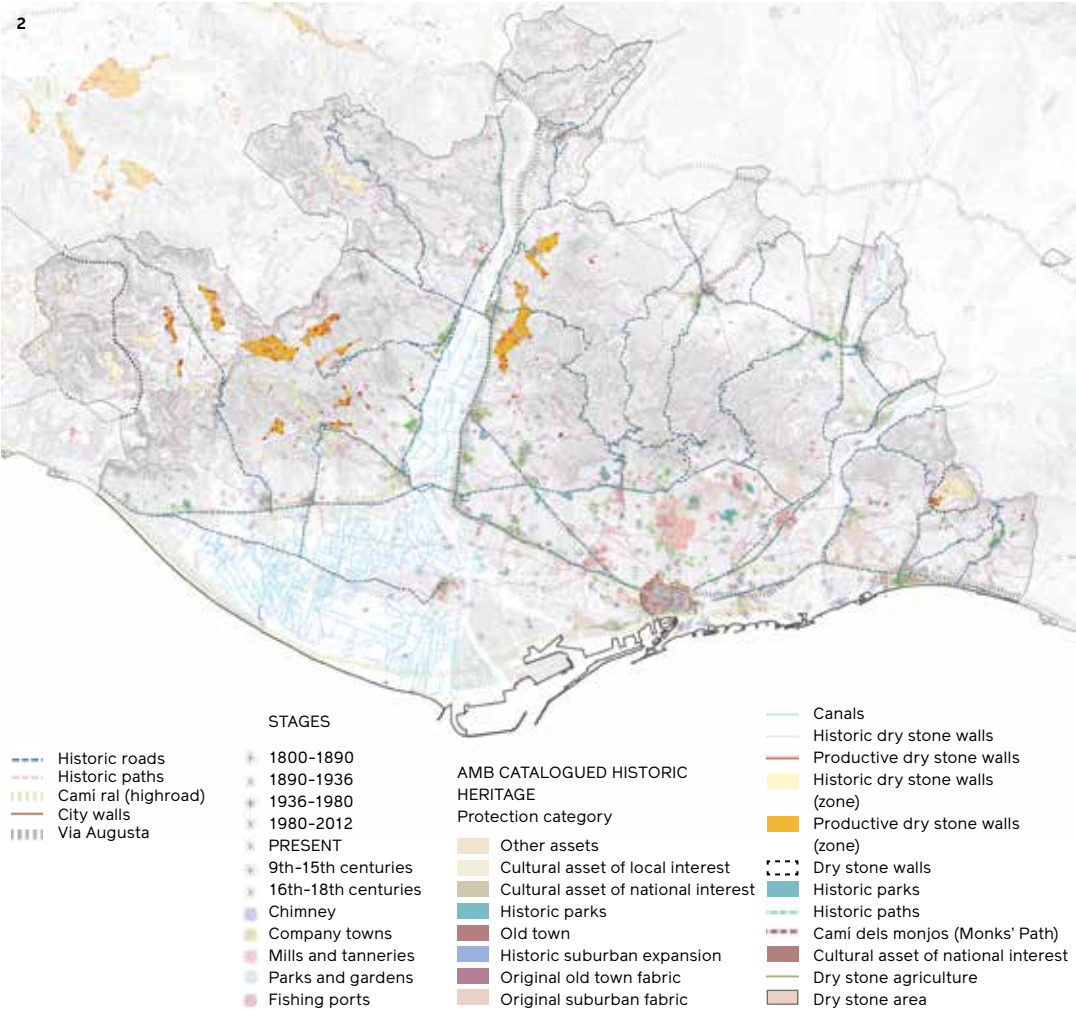
CLIENT Barcelona Metropolitan Area • PERIOD 2018—the present  
AREA Barcelona Metropolitan Area, 36 municipalities, 636 km²



The Barcelona Metropolitan Area (AMB) is preparing the Metropolitan Urban Development Master Plan (PDU), which will make it possible to lay the foundations of the future metropolis's new urban development. Given the importance of the plan and the possible impact it could have on the environment, as established in the corresponding regulations, this plan must undergo a strategic environmental assessment. The strategic environmental assessment process is a preventive instrument whose purpose is to identify, predict, assess and establish the measures necessary to mitigate any possible adverse environmental effects associated with the development of the plan. The strategic environmental assessment consists of three major phases: the initial strategic document (jointly processed with the preliminary plan), the strategic environmental study (processed with the initial approval) and the strategic environmental declaration (with the definitive approval).

In parallel to the development and drafting of the preview of the PDU, Barcelona Regional has worked with the AMB on the preliminary works of the PDU (workshops and thematic round tables on open spaces, metabolism and mobility infrastructure) and on the preparation of the Strategic Initial Document (DIE) of the PDU.

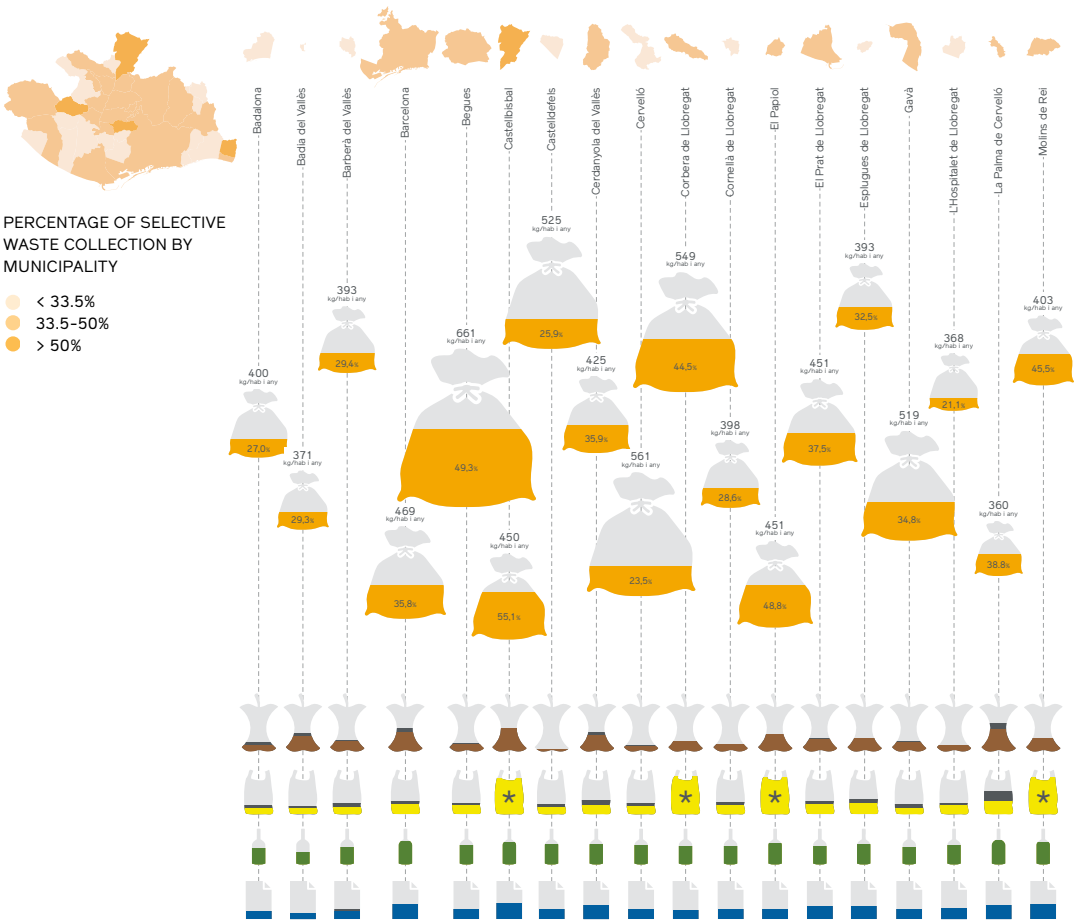
The DIE, which is processed in parallel to the Preview of the Metropolitan Urban Development Master Plan (PDU), diagnoses the territorial matrix, green infrastructure, urban metabolism, climate change and the resilience of the metropolitan territory as well as establishing the environmental objectives that the PDU should set and finally performing an environmental analysis of the alternatives proposed in the preview. To complete the DIE, Barcelona Regional has also carried out specific studies to aid the diagnosis of the metropolitan territory.



# 2019-2025 METROPOLITAN PROGRAMME FOR MUNICIPAL WASTE PREVENTION AND RESOURCE MANAGEMENT (PREMET25)

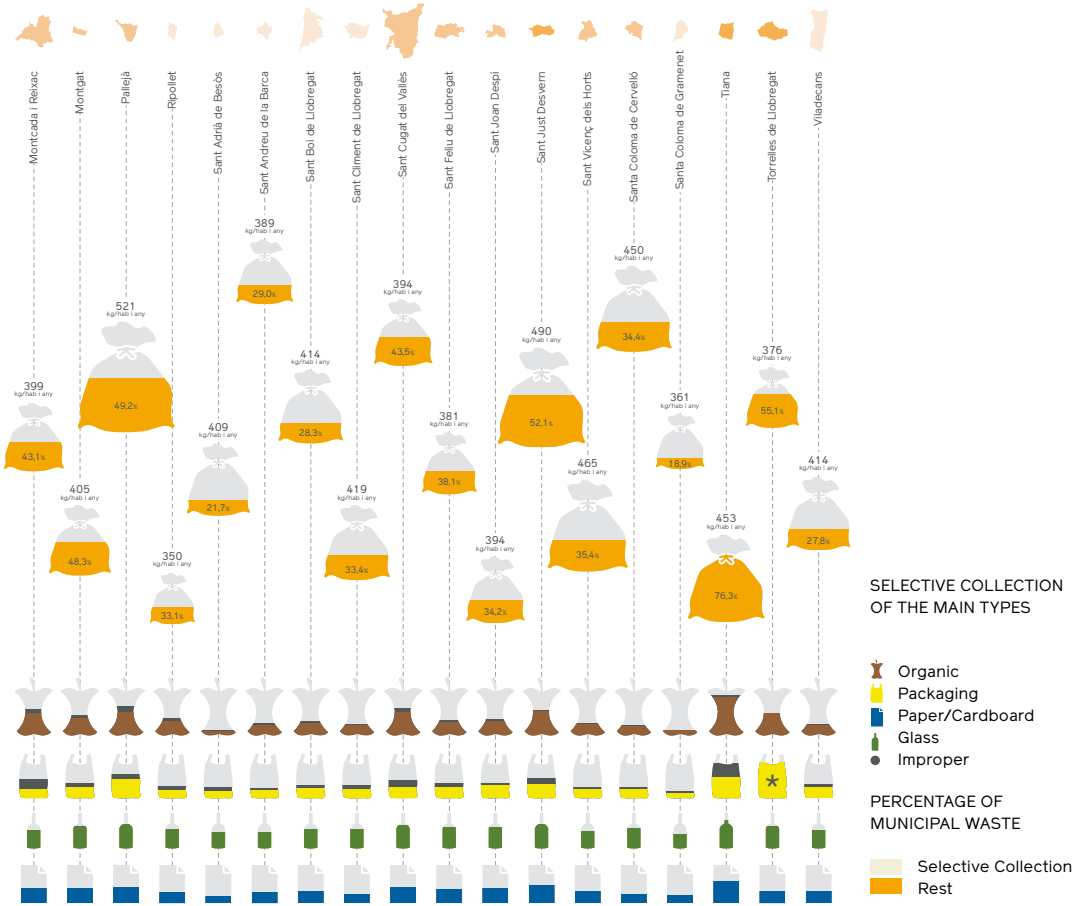
CLIENT Barcelona Metropolitan Area • PERIOD 2017-the present  
AREA Barcelona Metropolitan Area, 36 municipalities, 636 km²

Since 2017, Barcelona Regional has been providing technical assistance to the Programmes and Studies Service of the AMB Waste Management and Prevention Department for various analysis projects within the framework of this programme and its drafting. It has worked on projects including the calculation of a global recycling indicator (DREC), the definition of waste generation forecasts and selective collection scenarios, and the classification of the management of each type of municipal waste.



PREMET25 is the metropolitan waste planning instrument designed to define an action strategy based on a new governance model committed to reducing municipal waste, achieving a recycling level of 55% by 2025 and achieving carbon neutrality in the metropolitan waste treatment system.

This programme goes beyond continuing the previous metropolitan waste management programmes (1997-2006 and 2009-2016) and takes a step forward by emphasising not only the treatment of the waste that reaches the plants, but also the need to make progress towards a system of individualised waste collection systems, which enable improved separation of waste at the source, and the need to develop a new governance model to work jointly with the metropolitan municipalities to meet European objectives. The programme also emphasises the necessary action in terms of environmental prevention and education and proposes a flexible action plan to adapt to future treatment needs as changes are made to collection systems. For further information you can consult [www.premet25.cat](http://www.premet25.cat).



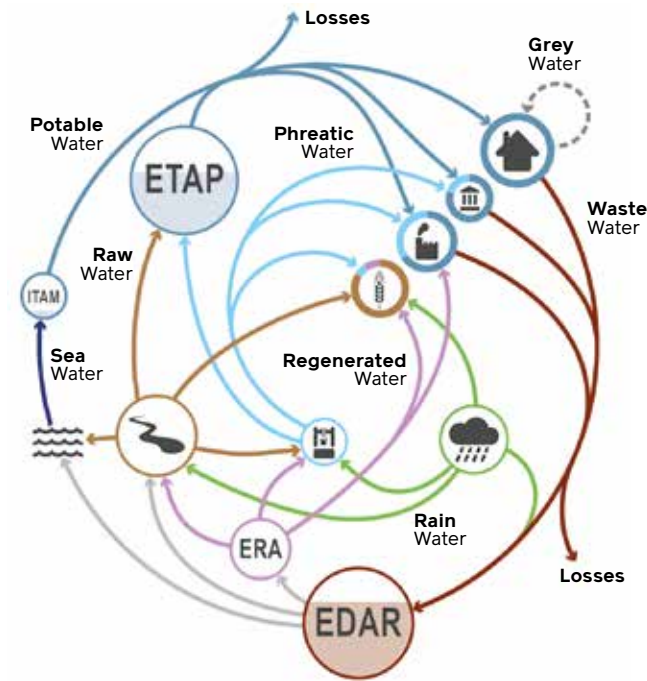


AMB WATER CYCLE MASTER PLAN

CLIENT Barcelona Metropolitan Area • PERIOD 2017—the present  
AREA Barcelona Metropolitan Area, 36 municipalities, 636 km²

The Barcelona Metropolitan Area is deficient in terms of water resources: due to its location, its climate and its large population and industrial activity, it consumes more water than its physical environment can provide. It is for this reason that the water cycle is being analysed from a comprehensive perspective, considering all the water types (surface, underground, regenerated and rainwater) that are consumed (by homes, industry, commerce, irrigation, etc.), how they are related and how their use can be optimised.

As it is a deficient region, much of the water that is consumed in the AMB comes from outside, especially in the case of potable water, which moreover is the most significant consumption in terms of annual volume. It is for this reason that it is of interest to strike a balance between the water resources obtained within the limits of the AMB and those from outside. This distinction makes it possible to determine, in the final analysis, the extent to which the AMB is self-sufficient and to analyse of whether in the future this self-sufficiency can be increased, taking into account future planning and the effects of climate change.



The AMB Water Cycle Master Plan has the aim of increasing the sustainability, resilience and efficiency of this cycle, consolidating the full water cycle concept and improving the quality of water bodies. This document comprehensively and transversally studies water resources and demands, in addition to the supply, sanitation, regeneration and irrigation systems within the metropolitan territory. It proposes a snapshot of the current situation and of the future challenges in order to identify water cycle weaknesses and threats and establish lines of action with the aim of improving its efficiency, seeking formulas to adapt the available sources to current and potential demand levels, increasing the use of local resources and minimising territorial dependence on other systems.

TAGS

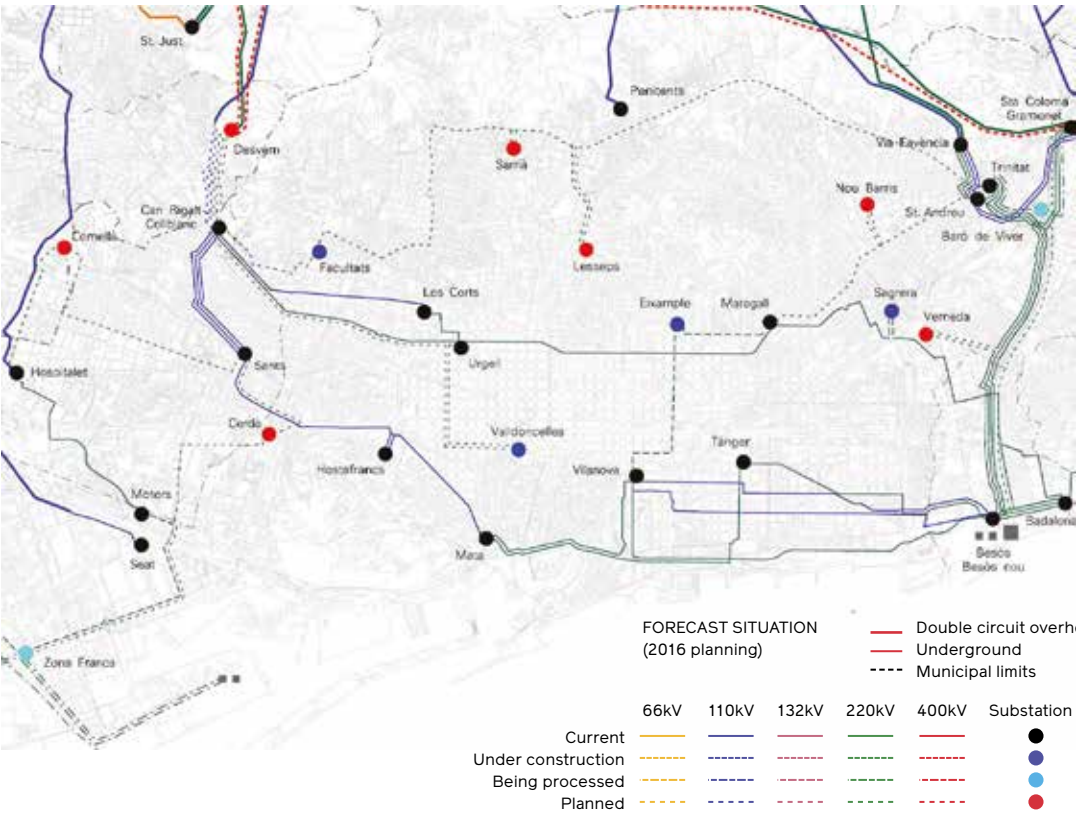
Climate Change, Digitisation, Environment, Environmental Quality, Infrastructure, Resilience, Territorial Strategy, Urban Metabolism, Waste, Water

ENERGY AND CLIMATE

STRATEGIC AMB ELECTRIC GRID PLAN

CLIENT Barcelona Metropolitan Area • PERIOD 2006—2011  
AREA Barcelona Metropolitan Area, 36 municipalities, 636 km²

A strategic plan was developed within the framework of the monitoring of actions applied to the electric grid of Barcelona and its surrounding areas with the aim of improving the quality of the Barcelona Metropolitan Area grid. This strategic plan proposed an alternative to the sector plans, improving the resilience and environmental quality of the territory through work on the network and the homogenisation and streamlining of the network of overhead transmission lines to reduce the impact on the natural and urban environments of the metropolitan territory.



TAGS

Digitisation, Energy, Environmental Quality, Infrastructure, Mobility, Resilience, Urban Metabolism, Urban Strategy

AIR QUALITY

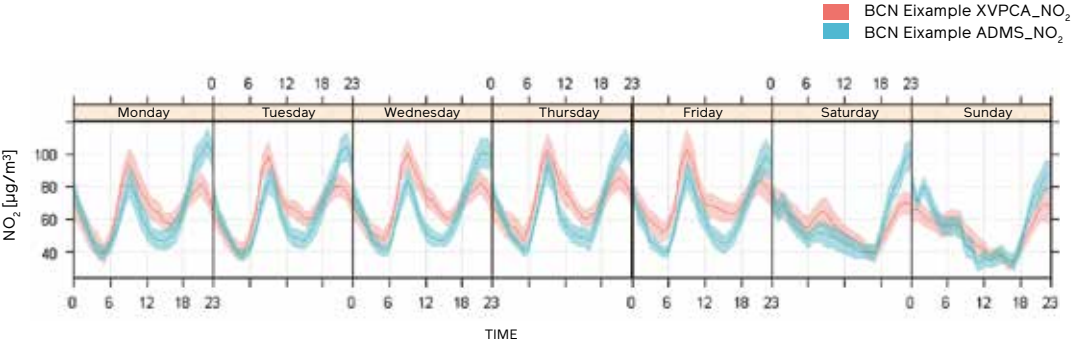
MUNICIPALITIES OF BARCELONA METROPOLITAN REGION

CLIENTS Barcelona Metropolitan Area and Government of Catalonia  
PERIOD 2010–2018—the present • AREA AMB and certain municipalities of the RMB



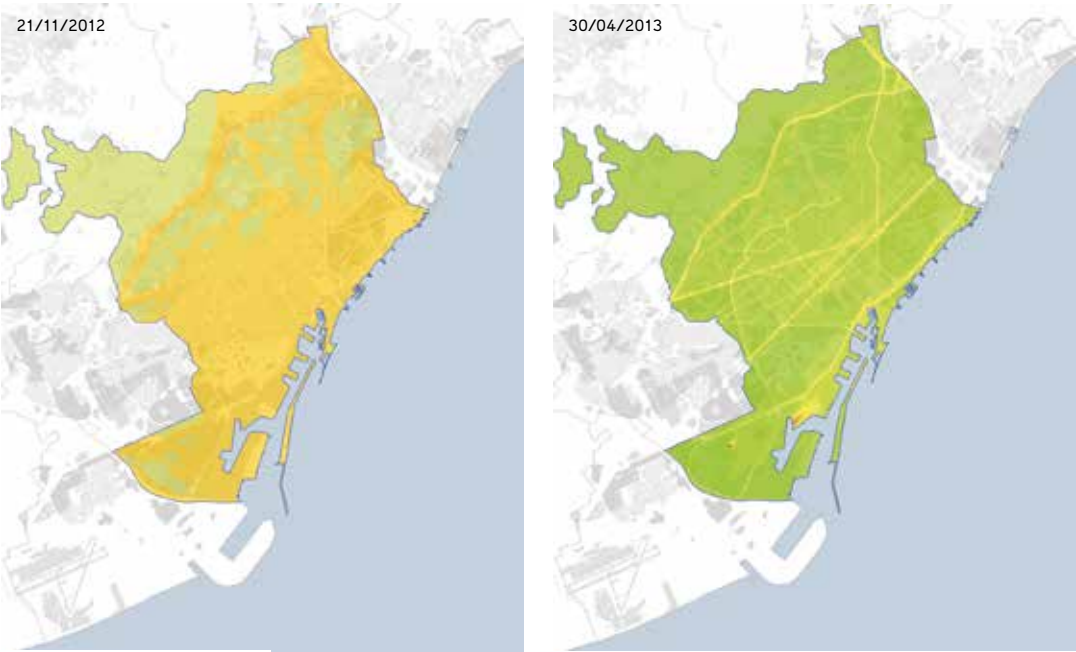
Barcelona Regional used the experience it gained with the Barcelona air quality model to apply it to air quality models for the Government of Catalonia, the Port of Barcelona, ADIF and municipalities of Barcelona Metropolitan Area and Region, such as Badalona, El Prat de Llobregat, Esplugues de Llobregat, L'Hospitalet de Llobregat, Sabadell, Mollet del Vallès, Santa Perpètua de Mogoda, Santa Coloma de Gramenet, Sant Adrià de Besòs and Sant Just Desvern.

To model the behaviour of pollutants, an exhaustive inventory of emissions distributed territorially and over time was conducted and introduced into a pollutant dispersion model that considers the street canyon effect produced in cities and the chemical reactions of the pollutants in order to obtain the territorial distribution of their concentration in the metropolitan continuum with an average resolution of 20 m. For this project a detailed inventory of emissions and of all the sectors was prepared using Geographic Information Systems (GISs), and moreover Remote Sensing Device (RSD) technology was used to obtain a detailed classification of the vehicles that circulate through the city, measuring their exhaust emissions in real traffic situations.



With regard to the forecasting of air quality, Barcelona Regional has developed an automatic learning algorithm model for the Barcelona Metropolitan Area, which forecasts the levels of NO<sub>2</sub>, PM<sub>10</sub> and O<sub>3</sub> pollution on a daily and hourly basis for the next three days. The forecast is performed using a neural network consisting of various levels (deep learning) and the result is shown in µg/m<sup>3</sup> and in the Metropolitan Air Quality Index (IQAM).

The results of the forecast can be publicly consulted on the website of the AMB ([www.visorqualitataire.amb.cat](http://www.visorqualitataire.amb.cat)), where you can also see the evolution of air quality over the previous five days. Alerts are sent internally by email if certain contamination thresholds are exceeded, which helps the managers of the territory in their tasks by allowing them to consider air quality levels when there is a high concentration of pollutants or high levels are forecast.



AIR QUALITY INDEX

- Excellent
- Satisfactory
- Acceptable
- Poor
- Very Poor

AVERAGE DAILY CONCENTRATION OF POLLUTANTS µg/m<sup>3</sup>

80 10 20 25 30 35 40 45 50 60 70 80 >100



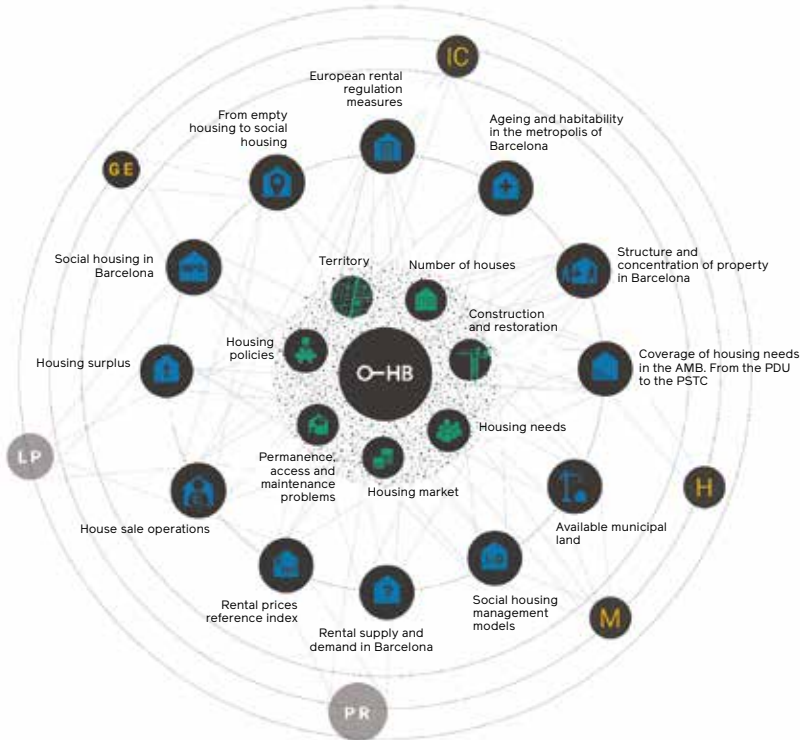
# HOUSING

## WORKS WITHIN THE FRAMEWORK OF THE BARCELONA METROPOLITAN HOUSING OBSERVATORY

CLIENTS Government of Catalonia, Barcelona Provincial Council, Barcelona Metropolitan Area and Barcelona City Council, with the support of the Association of Social Housing Managers of Catalonia (GHS)  
PERIOD 2016—the present • AREA Barcelona Metropolitan Area, 36 municipalities, 636 km<sup>2</sup>

Phenomena as disparate as the 2008 financial crisis and the advent of tourist home rental companies like Airbnb (created in that same year) have significantly changed the property market in the metropolitan area of Barcelona. The housing emergency and housing access difficulties stand in stark contrast to the high level of available housing, which has proved difficult to quantify despite the attempts to carry out a census made by some towns and cities. Additionally, in the metropolitan area there are concentrations of buildings in need of restoration in historical areas and, above all, in developments from the period from 1950 to 1970, which do not comply with the current requirements in terms of heat insulation and general building quality.

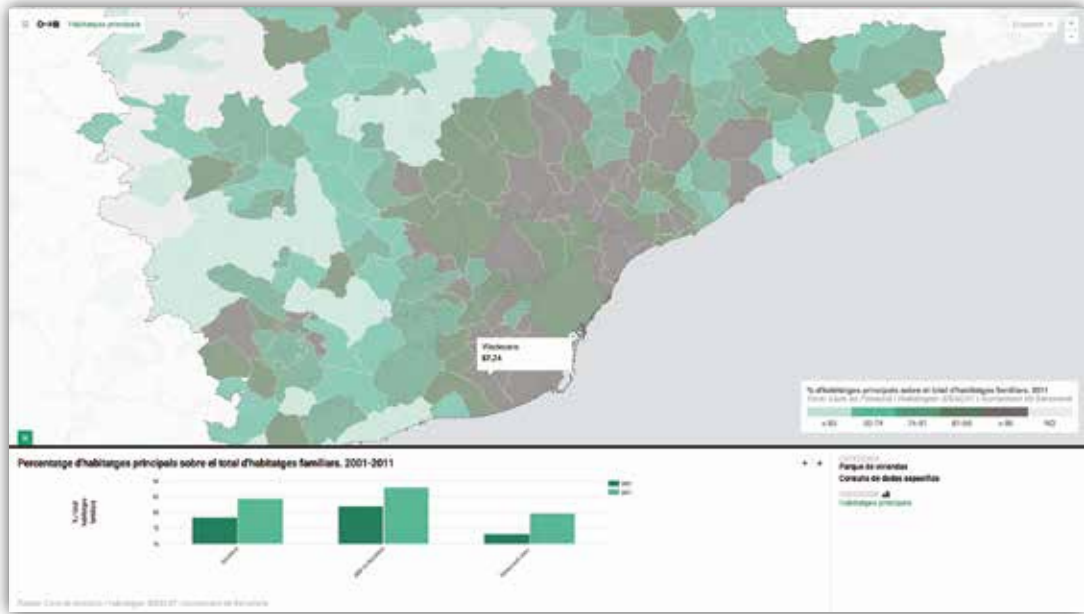
1



The management of available housing, the management of gentrification and the impact of tourist accommodation, restoration, the monitoring of overoccupancy and underhousing situations, and the housing emergency are the main focus of housing problems in the metropolitan area of Barcelona. To establish public policies to meet these challenges it is necessary to have data on the supramunicipal and metropolitan scales as well as supramunicipal management instruments. Barcelona Regional has participated, and even instigated, various studies and initiatives in this direction.

In this regard, Barcelona Regional fostered the creation of the Barcelona Metropolitan Housing Observatory (O-HB), an instrument with a supramunicipal scope headed by various administrations that is capable of tackling housing from a holistic perspective and contributing the information and tools necessary to assess and design the public policies to be adopted in the Barcelona metropolitan area. The main objectives of the O-HB are: (1) support the design of public housing policies; (2) take a snapshot of the housing situation based on statistical information; (3) guarantee the neutrality and objectivity of statistical data; (4) disseminate the information to the public; (5) form a network with other services or centres that provide housing data.

2



The statistical content of the observatory is organised with a variety of products based on the construction of a system of housing indicators using the available information and new data prepared by laboratories and collaborators. An annual report is prepared with an analysis of the statistical content, which is also accessible on the O-HB web portal ([www.ohb.cat](http://www.ohb.cat)) along with various systems for the dissemination and visualisation of the information.

# MOBILITY AND INFRASTRUCTURE

## HIGH-SPEED AND METROPOLITAN SYSTEM

CLIENTS Barcelona City Council, Ministry of Development and Metropolitan Transport Authority  
PERIOD 1994—the present • AREA AMB-RMB-Euroregion

La Sagrera station, within the framework of a new railway system designed to incorporate high-speed rail, has been an ongoing presence at Barcelona Regional since its establishment. Given the various proposals put forward by different administrations, often centring on connecting two points on an abstract diagram, Barcelona Regional contributed an examination of the territorial and urban context and was always aware that the proposals had to be put forward with a general strategy that takes into account not just the current situation, but also the dynamics necessary to bring about a future in which these proposals would not be out of place.



At the start, when high-speed rail was first mooted, the Government of Catalonia proposed a connection with France from La Sagrera. Shortly afterwards, given the need to connect with Madrid and the rest of Spain, it opted for a station for the AVE high-speed train at Sant Cugat, on the shortest line to France, without entering the city of Barcelona. The Ministry of Development had accepted the proposal, but with the addition of a branch line through Besòs to La Sagrera, which appeared as the only station with AVE in Barcelona. The trains from Madrid would have had to arrive crossing El Vallès and then back up along this branch line to enter La Sagrera, which, for high-speed rail, would have been a terminal station. Trains passing through from Madrid to France would not have entered Barcelona and would have stopped only at Sant Cugat.

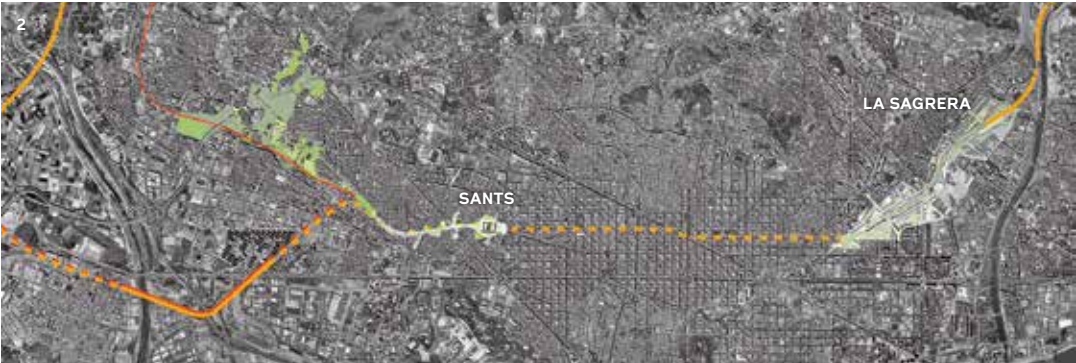
Given this scenario, Barcelona City Council and Barcelona Regional prepared a strategic alternative that covered the metropolitan area by means of a system with two stations: one at La Sagrera and the other under the passenger terminal at the airport, both connected along the coast: using part of the existing rail corridor to El Morrot and constructing a tunnel in front of Moll de la Fusta (smaller than the one that connects Sants to La Sagrera) to Estació de França, taking advantage of the corridor from that station to arrive at La Sagrera.

The premise was the need to build on the success of the Olympic Games and Barcelona's new positioning, in addition to fostering a new Euroregion that was to be interconnected by means of high-speed rail, and connected to the world via the airport. It is within this framework that the station under the passenger terminal was proposed, to take advantage of the synergy of the two means of transport. It was to be a regional train (Zaragoza, Valencia, Montpellier, Toulouse, etc.) that would contribute the critical mass to strengthen an airport with a European and global scope.

Barcelona made this proposal within a negotiation scenario in which the Government of Catalonia defended the station at Sant Cugat, and the Ministry of Development, which did not rhetorically deny the virtues of the solution under the terminal, distanced itself from it over time and proposed a route via the Llobregat to Sants, approaching the airport, leaving the possibility of a branch from the city of El Prat to the terminal in the future somewhat uncertain. In the midst of these divergent proposals, an agreement was reached on a solution with both stations: Sants and La Sagrera, connected by means of a tunnel. Barcelona introduced the commitment to cover the tracks and accesses at Sants, in addition to the intermodal nature of La Sagrera (high-speed, long-distance, regional, local, metro and buses) within the framework of an urban transformation of the entire area, including the construction of a park over the tracks. Accordingly, trains from the south would stop at Sants and finish their journey at La Sagrera, while trains to the north would start from Sants and stop at La Sagrera. Regional trains would pass through both stations.

In this back and forth, with an imperfect approach to the airport, the route of the high-speed train ended up being extended to El Prat de Llobregat, with a shuttle and an exchange station not located at the airport, without resolving the conflict or contributing any improvements. The station did not enter into service and has caused, moreover, an unnecessary increase in distance for direct trains.

The current situation, resulting from the crisis, political circumstances and mistakes, means that Sants is very saturated, which may be exacerbated by the entry into service of the shuttle connecting the two terminals of the airport. Meanwhile, La Sagrera is still under construction and is still some time from entering into service.

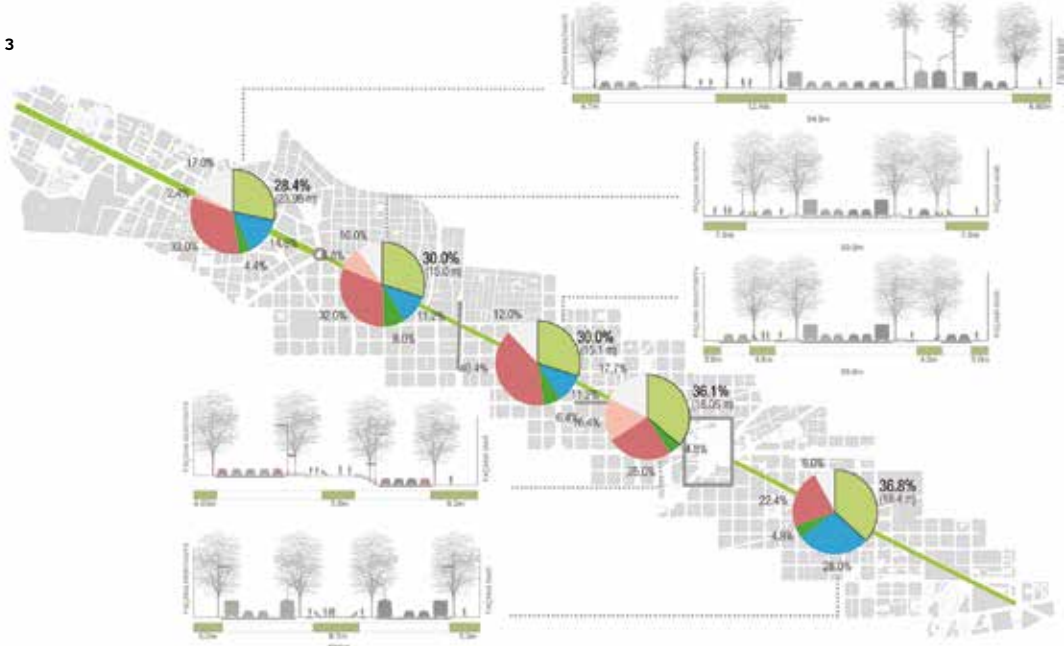
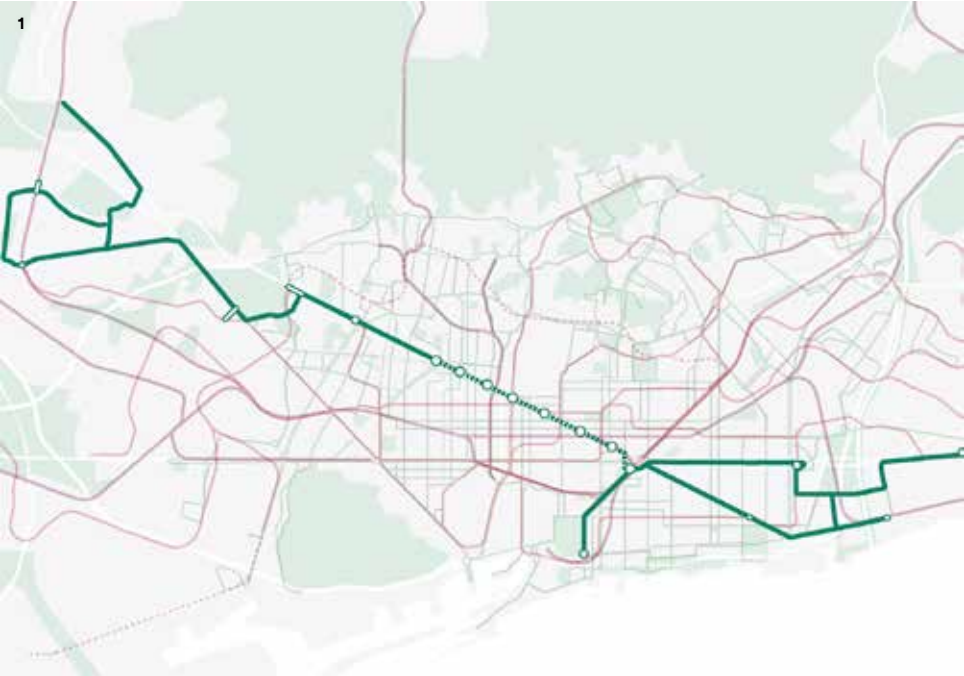




TRAM

CLIENTS Barcelona City Council and Metropolitan Transport Authority • PERIOD 1997–2010—the present

Since 1999 Barcelona Regional has participated in the various reflections on the implementation of the tram in Barcelona and other metropolitan municipalities. Since the pilot test on Avinguda Diagonal, it has made various contributions to the reintroduction of this means of transport, such as Tram-Baix and TramBesòs. These new implementations resulted in significant improvements in both the quality of the urban space and the relationship between the various cities they cross.



TRAFFIC - RUSH HOUR

Pedestrians Bicycles  
Public transport Cars

From 2015 to 2018, Barcelona Regional analysed and assessed the main environmental aspects of each one of the alternatives to unite the two tram networks with the aim of improving mobility in the city of Barcelona and making it more sustainable. Efforts were made to reduce private transport, fostering public transport and facilitating the accessibility conditions of pedestrians and cyclists in order to optimise the environmental quality of the urban space. Moreover, the study identifies potential impacts in the construction and operation phases, and proposes a series of preventive, corrective and compensatory measures to be carried out to achieve the desired environmental quality standards.

## 238

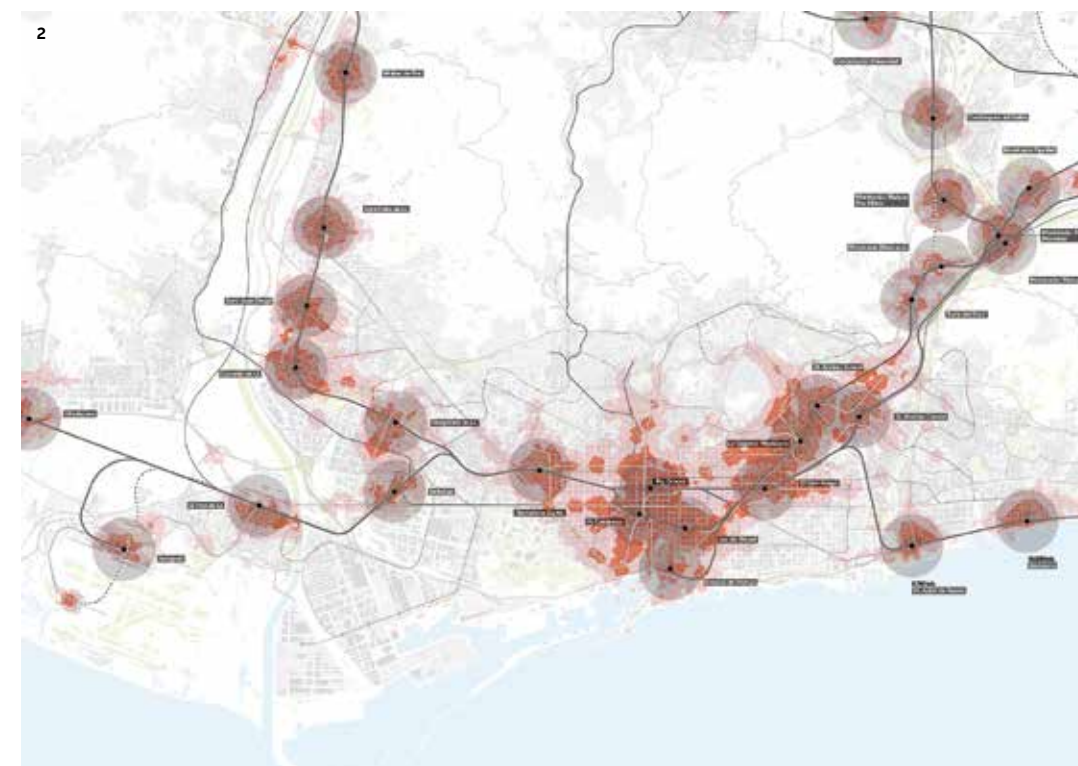
Infrastructure, Mobility, Territorial Strategy

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## TAGS

### 1. RESIDENT POPULATION IN THE AREA OF THE RODALIES CORRIDORS (2018)

239



## 2. ACCESS TIME TO THE RODALIES LOCAL RAILWAY STATIONS IN THE CENTRAL AREA

## ACCESSIBILITY ON PUBLIC TRANSPORT

Up to 5 minutes

Up to 10 minutes

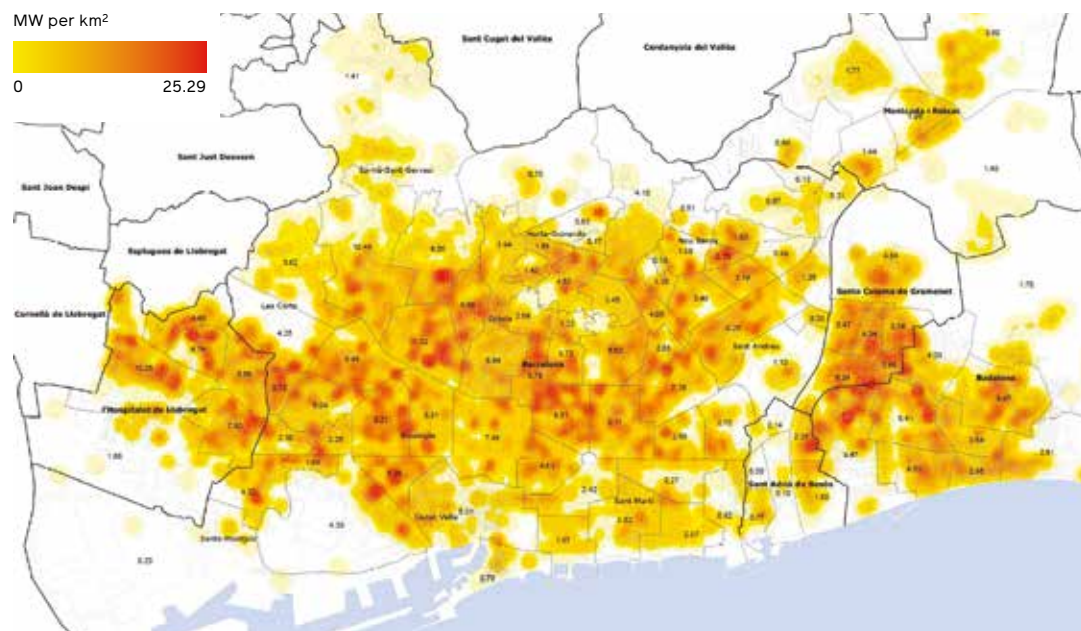
## ACCESSIBILITY ON FOOT

— Up to 15 minutes



**ELECTRIC VEHICLES****BENEFITS AND POTENTIAL FOR IMPLEMENTATION IN SIX MUNICIPALITIES OF THE AMB**

CLIENTS Barcelona City Council and El Besòs Consortium • PERIOD 2013–2014  
 AREA Badalona, Barcelona, L'Hospitalet de Llobregat, Montcada i Reixac, Sant Adrià de Besòs and Santa Coloma de Gramenet



This project has the aim of analysing the potential for the implementation of privately owned electric vehicles in six municipalities in the region of El Barcelonès: Badalona, Barcelona, L'Hospitalet de Llobregat, Montcada i Reixac, Sant Adrià de Besòs and Santa Coloma de Gramenet. It also determines the zones where it would be easiest to deploy electromobility, and quantifies their implementation potential and any possible associated benefits, such as the impact of replacing conventional vehicles with electric vehicles on reducing air pollution.

The study focuses exclusively on the residential sector, which has the greatest potential but is also the most complex. In this regard, the potential to change from conventional private vehicles to electric vehicles (pure electric cars, plug-in hybrids and electric motorcycles) is analysed. The ability of private and public car parks to adapt to electric vehicle charging in the future is also studied. Accordingly, the project detects the urban areas in which the implementation of electric vehicles would be most problematic due to a lack of underground car parks close to people's homes. The project also considers the electrical power necessary to charge the future electric vehicles taking into account the scenarios of the project and their territorial distribution, and calculates the reduction of emissions expected from this technological change.

TAGS

Climate Change, Energy, Environmental Quality,  
 Infrastructure, Mobility, Territorial Strategy,  
 Urban Development

OBJECTIVE

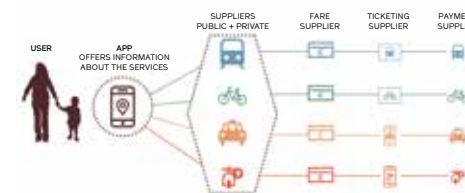
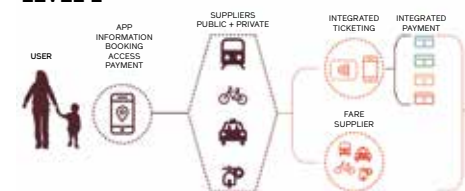
Observe, Reflect

240

**MOBILITY AS A SERVICE (MaaS)**

CLIENT Barcelona City Council • PERIOD 2017–2018  
 AREA Barcelona Metropolitan Area, 36 municipalities, 636 km²

Mobility as a Service (MaaS) is a new paradigm that integrates all public transport and sharing services and providers, offering users route, booking and payment options tailored to their needs. Mobility as a Service is an opportunity to strengthen and stimulate the public transport system, integrating it into shared mobility services and guaranteeing a more balanced, sustainable, responsible and effective mobility ecosystem for people's everyday lives. MaaS also offers a regulatory and operational framework for new forms of mobility, defending mobility as a fundamental right which must maintain its social and economic characteristics within urban contexts.

**LEVEL 1 INTEGRATED INFORMATION****LEVEL 3 MAXIMUM INTEGRATION****LEVEL 2 INTEGRATED TICKETING OR PAYMENT****LEVEL 4 CUSTOMISED MOBILITY**

The strategy contributes a reflection on the organisational and technological aspects necessary for the implementation of a MaaS platform in Barcelona (extendable to the area of the Integrated Fare System of the Metropolitan Transport Authority - ATM), with various public sector leadership options, but always with public transport as the backbone of the new mobility ecosystem. In this sense, a road map for the development of Mobility as a Service is prioritised within the implementation of the ATM's new T-Mobilitat transport system.

TAGS

Digitisation, Environmental Quality,  
 Infrastructure, Mobility,  
 Territorial Strategy, Urban Strategy

OBJECTIVE

Observe, Reflect

241

# ECONOMIC ACTIVITY

## PUBLICATION ATLES INDUSTRIAL DE LA REGIÓ METROPOLITANA DE BARCELONA [INDUSTRIAL ATLAS OF THE BARCELONA METROPOLITAN REGION]

CLIENTS Industrial Pact and University of Barcelona • PERIOD 2006 • AREA RMB



AUTHORS Various  
PUBLISHER Beta  
ISBN 84-7091-422-7; 978-84-7091-422-5  
EDITION Barcelona, 2006  
LANGUAGE Catalan

The atlas was prepared within the framework of the Industrial Pact Economic Activity Committee, based on the Industrial Base studies of the RMB and the Territorial Analysis of Industry in the Barcelona Metropolitan Region jointly undertaken by lecturers from the University of Barcelona and Barcelona Regional technicians.

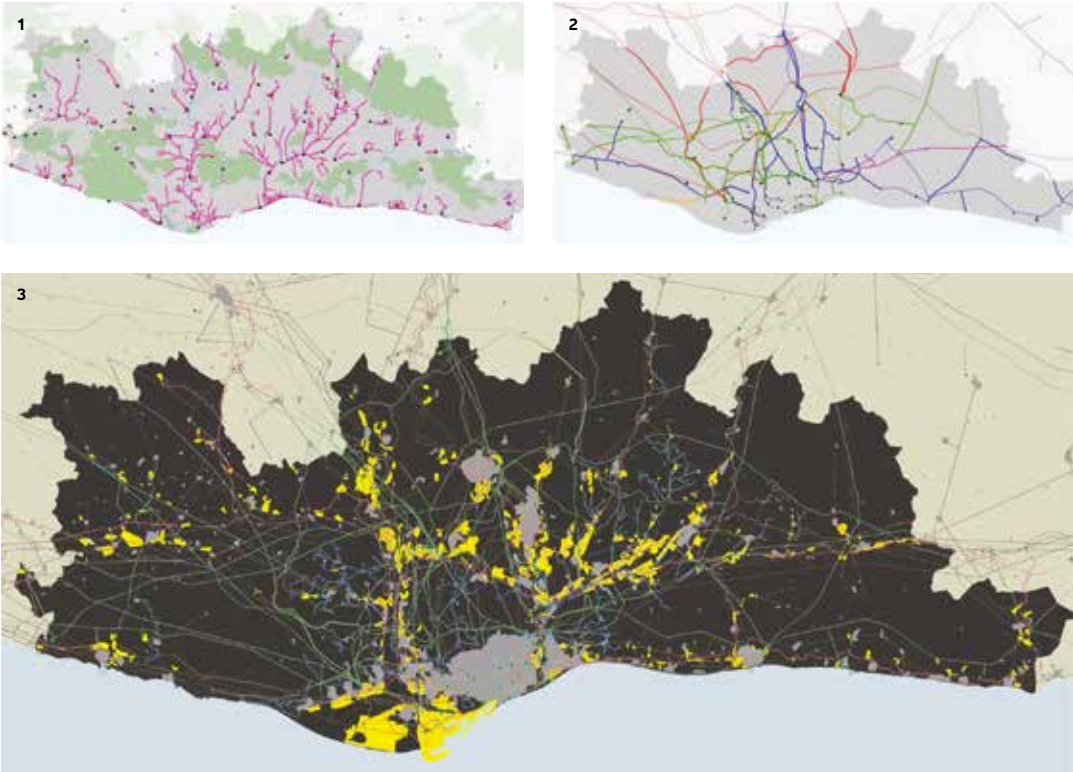
Its objective was to provide a systematic and orderly description of the industrial fabric in the Barcelona Metropolitan Region (RMB) and the surrounding regions. The information was used to produce an exhaustive list of the activity carried out by companies throughout the region, as well as their location and size. As the research process included statistical information that had never been used for academic purposes, its results and conclusions shed new light on this subject.



# DETERMINANTS OF INDUSTRIAL LAND FOR THE LOCATION OF COMPANIES

CLIENT Barcelona Metropolitan Strategic Plan (PEMB) • PERIOD 2010–2012  
AREA Barcelona Metropolitan Region

This study responds to a question put forward by the Industrial Competitiveness Committee within the framework of the Barcelona Metropolitan Strategic Plan: 'If tomorrow I wanted to locate my industry in the metropolitan area, where could I do it?'. With the aim of answering this question, the study identified which elements defined the supply of locations for this type of activity, that is, it analysed which variables of the characteristics of industrial land and of the process for which this land is specified and developed condition or could condition the subsequent location of companies. Having identified these determinants, the study collected and proposed policies and specific actions that could contribute to removing or mitigating them.



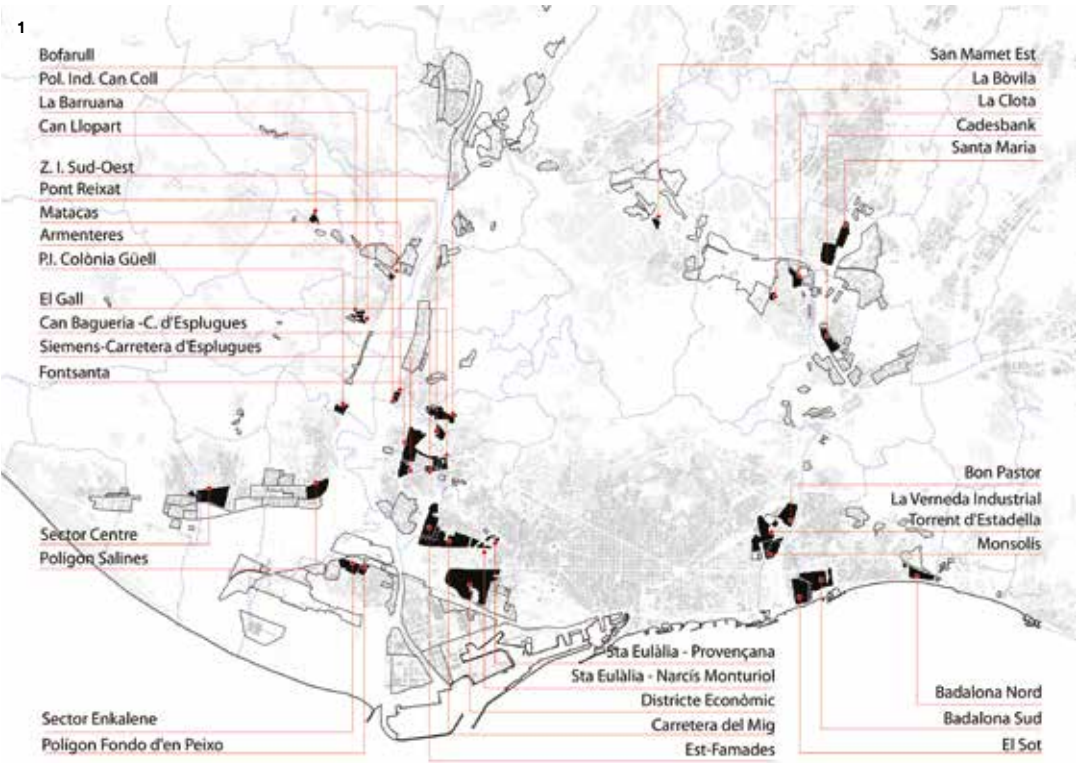
1. WASTEWATER TREATMENT NETWORK  
2. HIGH VOLTAGE ELECTRIC GRID  
3. PRODUCTION INFRASTRUCTURE AND SERVICES



INDUSTRIAL ESTATES IN THE URBAN CONTINUUM: AN ECONOMIC AND FUNCTIONAL CLASSIFICATION

CLIENT Barcelona Metropolitan Area • PERIOD 2018—the present • AREA Barcelona Metropolitan Area

Of the more than 20 urban development codes for zones and subzones on urban land established by the Metropolitan General Plan (PGM), only one (22@-Industrial) makes direct reference to productive activity. Beyond any assessments that can be made with respect to a certain level of morphological pathology within contemporary Catalan urban development, it is evident that the technological revolution of recent decades has made radical changes to the productive systems. This affects both the conditions arising from the internal processes of the activities and those related to their territorial implementation. Given this new global scenario, the amendment made in 2000 to the PGM with respect to the Barcelona neighbourhood of Poblenou with the creation of Subzone 22@ Bcn was a suitable and successful response, but its singularity, given its central location, made it impossible to adopt it as a solution that could be extrapolated to other metropolitan areas.



2

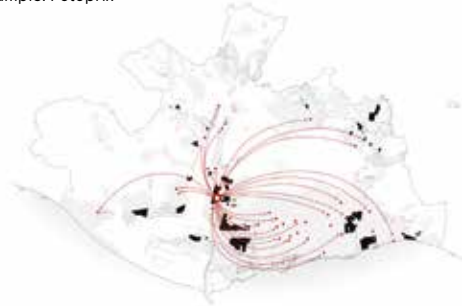
PRODUCTION SYSTEMS  
Graphic arts and editing companies



SYSTEMS THE SUSTAIN THE TERTIARY ECONOMY  
Example: Hotels



SYSTEMS THAT SUSTAIN THE TERTIARY ECONOMY  
Example: Fotoprix



SYSTEMS THAT SUSTAIN THE URBAN METABOLISM  
Recycling

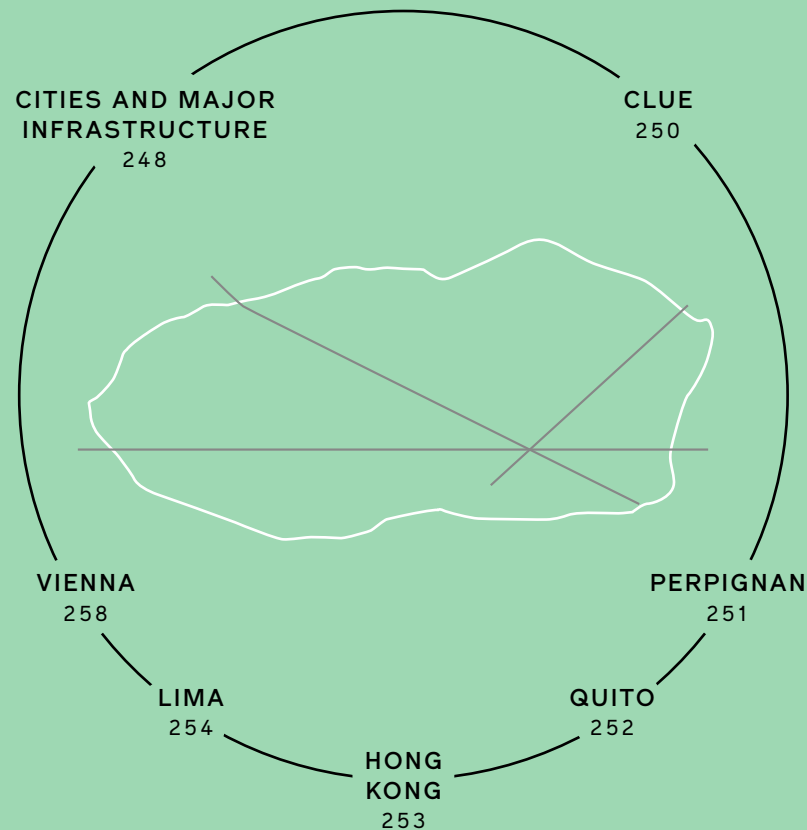


In this territory, market pressures and the consideration that the industrial spaces integrated into the urban section are obsolete fabrics with practically no productive use have justified for many years their transformation into more profitable economic uses, like residential and various tertiary uses. The result has been a progressive loss of a large part of these industrial spaces without prior planning of the role that they played in the balance of the urban system and the economic activity of the various cities and of the metropolitan area.

Within the framework of the definition of the metropolitan PDU (Urban Development Master Plan), Barcelona Regional was commissioned by the AMB department created to draft the plan to carry out a study on the classification of the economic activity and business fabric of 34 industrial estates integrated into the urban fabric, equivalent to approximately 1,000 ha. At the same time, an economic and functional assessment of this type of estate was carried out based on case studies, contributing knowledge about the role these spaces and their activities play in the economy of the city and its metabolic system.

This work must be framed within the efforts being carried out by BR for more than a decade to understand new productive dynamics in relation to the knowledge garnered from the precise classification of the current metropolitan area as well as its trends and, above all, the trends seen in more global scenarios.

# WORKS INTERNATIONAL



The set of actions that focussed on Barcelona's urban public spaces in the 1980s won the Prince of Wales Prize in Urban Design awarded by Harvard University in 1990. The transformations linked to the Olympic Games represented a change in scale that was subsequently maintained at the Fòrum, La Sagrera and 22@, all of which also garnered widespread international recognition. Quite apart from any debates about the supposed Barcelona Model, a polysemic and post-factual concept, there was indeed enormous interest in the city's successive transformations amongst professionals and civic leaders in numerous cities around the world. Accordingly, the desire to communicate the experience it had garnered and the certainty that its present and future challenges were shared by cities and metropolitan areas in different corners of the globe has always been present at Barcelona Regional (BR) since its establishment. This exchange of strategic knowledge, experiences, visions and solutions regarding the development of urban regions and environments has given rise to various forms of shared collaboration and reflection.

Since 1994, at the behest of Barcelona City Council, BR has collaborated with cities like Perpignan (1994-1995), Sfax (2005), Quito (2008-2009), Hong Kong (2012-2015), Lima (2014), Marseille (2015) and Vienna (2015) on the preparation of projects and proposals as diverse as the urban integration of high-speed rail, the definition of structural public transport elements, the design of an urban waterfront and the transformation of an urban ring road into a pleasant pedestrian street. It has also participated in various European projects, mainly related to energy, air quality and health, such as Climate Neutral Urban Districts in Europe (CLUE).

BR actively participates on behalf of Barcelona City Council in the Airport Regions Conference (ARC) and the Worldwide Network of Port Cities (AIVP), and in the preparation of the strategy for Spanish and French cities in the Mediterranean Corridor and their high-speed railway connections.

The response to these exchanges and collaborations has also sometimes taken the form of exhibitions and publications. They range from touring exhibitions like "Barcelona in Progress" shown in Switzerland (2006), the United States (2006) and Russia (2008) and the preparation of others specifically for the Venice (2006) and Hong Kong (2014) biennales, to participation in publications like *Gares et dynamiques urbaines* [Railway Stations and Urban Dynamics] (2011) and *Villes et changement climatique. Îlots de chaleur urbains* [Cities and Climate Change. Urban Heat Islands] (2015).



# CITIES AND MAJOR INFRASTRUCTURE

Barcelona Regional has been a member of the Airport Regions Conference (ARC) since 1998 and the Global Network of Port Cities (AIVP, in French) since 2006. The ARC is a European association of cities and regions with an international airport located in their territory, whose objective is to analyse the impacts of the airport system (environmental, economic, social, territorial) and its relationship with local and regional policies. The AIVP brings together representatives chosen from the cities and from other local maritime and river organisations, port administrations and national regulatory authorities, urban and port operators, companies established in port cities, suppliers of services for city-port projects, architects, landscape architects and urban developers, and universities and research institutes in order to adapt to changes that impact the economic, social and environmental development of the port city.



## PUBLICATION FROM AIRPORT TO AIRPORT CITY



As a result of the collaboration with the ARC, Barcelona Regional has also participated in the publication *From Airport to Airport City*, which includes a comparative study on land exchanges and urban and economic development in and around new European airports, including the regions of Amsterdam, Barcelona, Frankfurt, Helsinki, London (Gatwick), Milan (Malpensa), Stockholm (Arlanda), Vienna and Zurich.

AUTHOR Güller Güller Architecture Urbanism  
PUBLISHER Airport Regions Conference  
EDITION Stockholm, 2001  
LANGUAGE English

TAGS

Climate Change, Environmental Quality,  
Infrastructure, Mobility,  
Territorial Strategy, Urban Strategy

OBJECTIVE

Observe, Reflect, Communicate

248

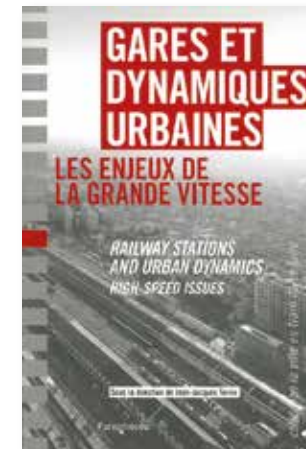
## MEDITERRANEAN CORRIDOR CITIES STRATEGY

PERIOD 2008—the present • AREA Mediterranean Railway Corridor

Monitoring and preparation of proposals on the strategic scale for the railway connection of the high-speed train with France (background, European railway network, execution and development of the current project, funding, etc.). The monitoring has been undertaken from both the Spanish side and the French side, varying its objectives in accordance with the phases of the project. Now that the interconnection has been completed, work is being done on the services and relationships between cities and on the infrastructure on the Perpignan-Montpellier section.



## PUBLICATION RAILWAY STATIONS AND URBAN DYNAMICS HIGH SPEED ISSUES



The high-speed train has disrupted the geographic and time scales of the urban territories that host it, leading them to reassess the dualistic nature of the local-global relationship and to develop challenges in relation to urban dynamics in order to be on a par with the modern image of European cities and their stations.

The project included the perspectives of researchers, experts and local managers regarding the cities of Barcelona, Lille, Lyon, Marseille, Rotterdam and Turin with a view to highlighting the innovative alliances that are forged between the public and private sectors, the role of urban marketing in enhancing the attractiveness of a territory, and the importance placed in such projects on the quality of architecture and public spaces.

AUTHOR Jean Jacques Terrin  
PUBLISHER Parenthèses  
EDITION Marseille, 2011  
ISBN 84-7609-925-8  
LANGUAGE French and English

TAGS

Environmental Quality, Infrastructure, Mobility,  
Territorial Strategy, Urban Strategy

OBJECTIVE

Observe, Reflect, Communicate

249

# CLUE

## CLIMATE NEUTRAL URBAN DISTRICTS IN EUROPE

CLIENT European Union. Interreg Programme IVc • PERIOD 2011–2014

Barcelona Regional is one of the members of the European Project framed by the Interreg IVc programme, a project to transfer knowledge and good practices in relation to climate neutral urban districts, covering legislative aspects, urban planning, citizen and public-private participation, energy efficiency technologies, the district heating and cooling network and urban transport. Barcelona Regional was the leader of the energy efficiency and district heating and cooling technologies work-group and also participated in the urban transport workgroup.



BARCELONA



DELFT

The result of the project is a good practices guide at the European scale, a report from each work-group on the good practices and the concepts behind them, the definition of political recommendations to establish criteria and guidelines for the design of districts with practically zero emissions, in addition to implementation plans for each participating city or region to make progress towards climate neutral districts. The project is the result of collaboration with the European cities of Stockholm, Rome, Turin, Hamburg, Vienna and Barcelona, the Polish region of Malopolska, the Greek municipality of Pangaio, Delft University of Technology, Edinburgh Napier University and the Stockholm KTH Royal Institute of Technology. For further information about the project you can consult [www.clue-project.eu](http://www.clue-project.eu).

TAGS

Climate Change, Environment,  
Environmental Quality, Infrastructure,  
Mobility, Urban Development,  
Urban Metabolism, Urban Strategy

OBJECTIVE

Observe, Reflect, Communicate

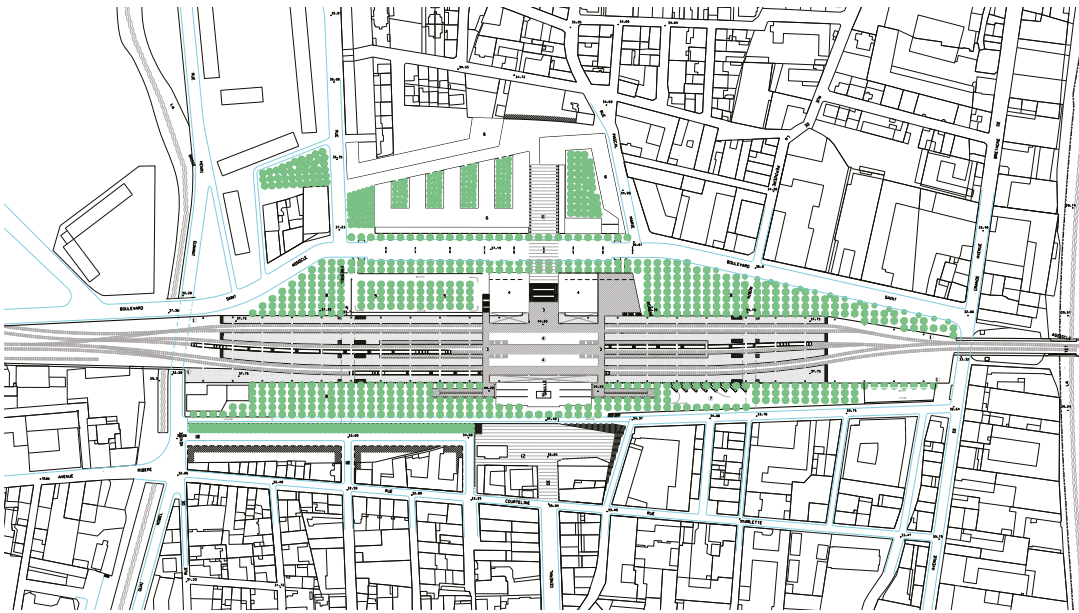
250

# PERPIGNAN

FRANCE

## NEW PERPIGNAN STATION AND URBAN PLANNING OF ITS SURROUNDINGS

CLIENT Perpignan City Council and Barcelona Metropolitan Area • PERIOD 1994–1995



The project was developed within the framework of an agreement between the cities of Barcelona and Perpignan to measure the urban development impact of the arrival of high-speed rail to the city of Perpignan. The agreement had three main objectives: (1) collaboration and assistance on the definition of the main urban development elements affected by the high-speed train (TGV, in French); (2) drafting of an urban planning proposal for the surrounding area, paying special attention to the connection between the central districts and Saint-Assise, respecting the current station building and constructing a major commercial and services area with car parks. The proposals had to consider various connection, burial and elevation alternatives; (3) collaboration on the design of a joint exhibition in Barcelona with submissions from the cities linked to the high-speed line between Spain and France (Barcelona-Girona-Perpignan-Montpellier).

TAGS

Infrastructure, Mobility, Urban Development,  
Urban Projects, Urban Strategy

OBJECTIVE

Reflect, Design

251

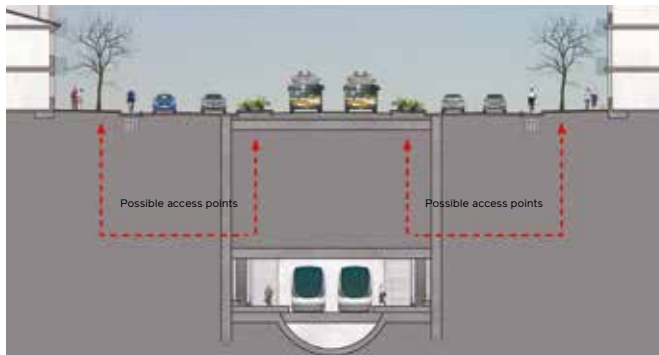


# QUITO

ECUADOR

## COLLABORATION WITH THE CITY OF QUITO

PERIOD 2008–2009



The work consisted of a collaboration with the Quito urban development company INNOVAR in order to generate a new urban centre with housing, administrative buildings and services, linked to the new Quito airport. This new urban development includes an international centre for fairs and conventions, an intermodal goods centre (CIM) for the new Quito airport, a 120 ha park (Bicentennial Park), a light rail system (TRAQ) and the design of the urban environment of the old Mariscal Sucre airport, which was transformed into a park when the new international airport started to operate.

Barcelona Regional's contribution encompassed two areas: firstly, helping to plan and draft the specifications for the international competition for the design of Bicentennial Park and participating in the call for tenders; and secondly, rezoning and reclassifying the urban environment of the old Mariscal Sucre airport and designing a land management and reurbanisation system, in preparation for the area's transformation.

# HONG KONG

CHINA

## 2014 HONG KONG BIENNALE

CLIENT Barcelona City Council • PERIOD 2012–2014

On November 16<sup>th</sup>, 2012, a memorandum of understanding was signed in Barcelona between the City Council and the government of the Special Administrative Region (SAR) of Hong Kong to collaborate by exchanging experiences in urban development, urban design, the development of the sea and urban regeneration, forming a think tank made up of experts from Hong Kong and Barcelona to study projects that affect both cities.

The city of Barcelona was invited to form part of Hong Kong's Bi-City Biennale of Urbanism/Architecture, which was held from December 6<sup>th</sup>, 2013, to February 28<sup>th</sup>, 2014. Barcelona Regional was commissioned by Barcelona City Council to manage, design and assemble Barcelona's stand at the event. Under the title of "Beyond the Urban Edge: The Ideal City?", the theme of the architecture and urbanism biennale was the world's cities, acting as a platform to tackle global problems in a visionary and critical manner. The design was produced by EXITDESIGN under the supervision of Barcelona City Council's Urban Habitat Unit and Barcelona Regional. The assembly was supervised by a Barcelona Regional employee in Hong Kong.

## PUBLICATION HONG KONG-BARCELONA URBAN EXCHANGE. A DUAL APPROACH TO WATERFRONT REGENERATION



The cooperation between the two cities culminated with an Urban Exchange Symposium in Hong Kong in February 2014, which focused on the regeneration of the waterfronts, reflecting the importance of the relationship of the two cities with spaces in contact with water. As a result of this event, a book that collected the experiences of the two cities in the transformation of their waterfronts was published.

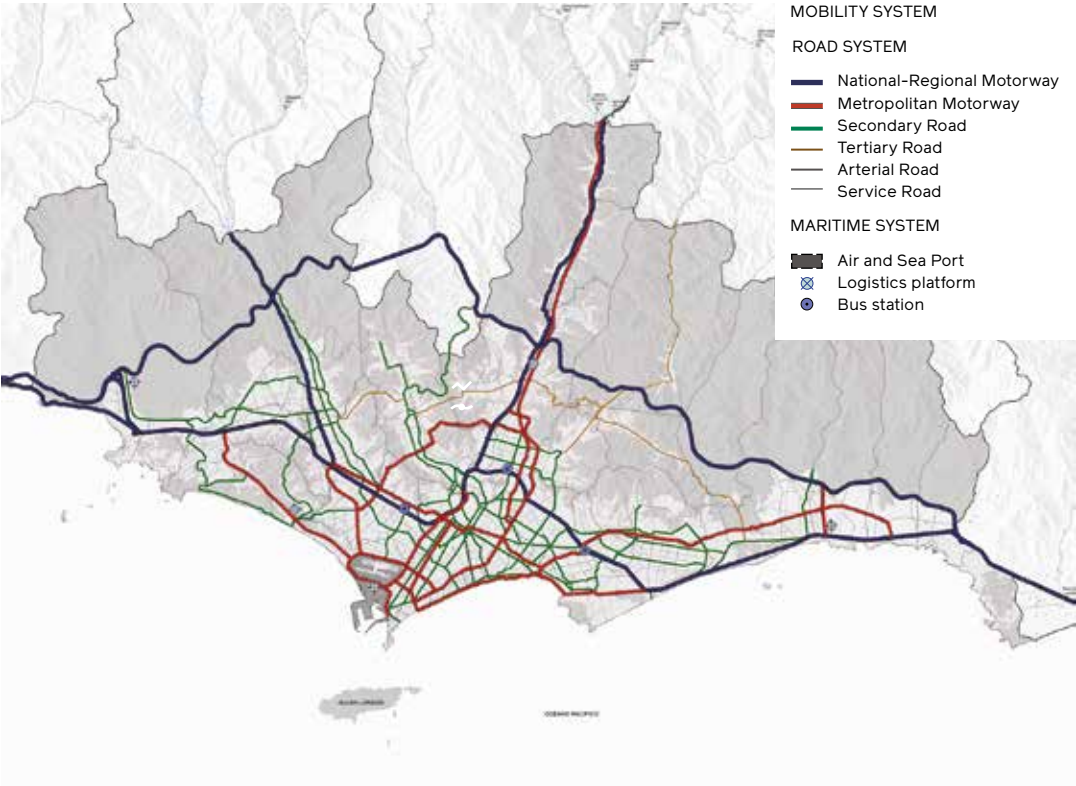
AUTHORS Various  
EDITION Hong Kong Biennale, 2015  
LANGUAGE English

# LIMA

PERU

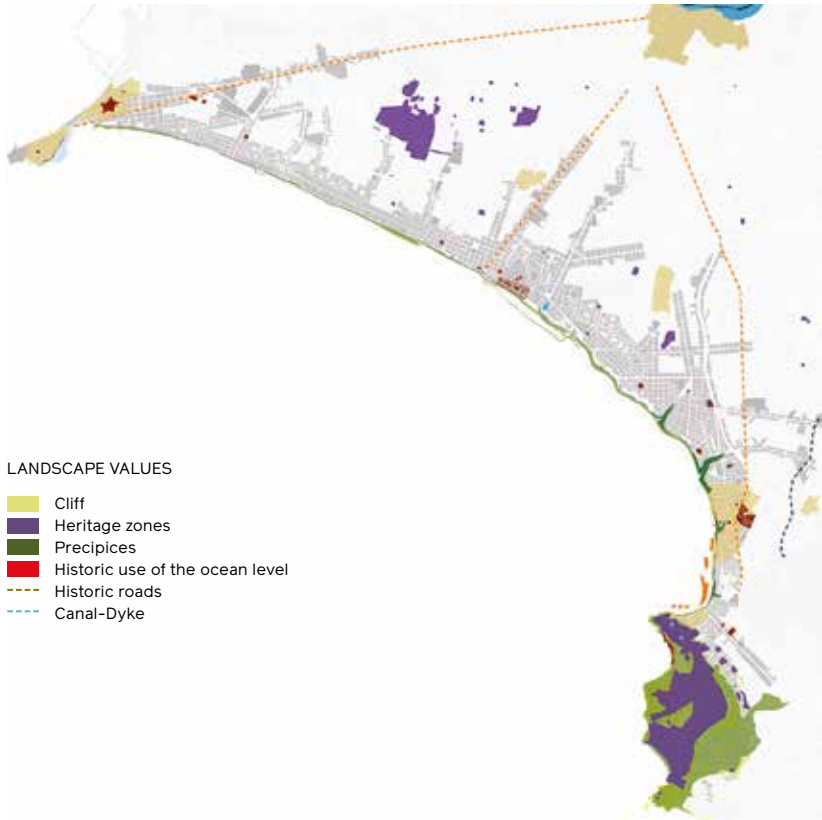
CLIENT Municipality of Lima, Callao (Peru) • PERIOD 2014

Barcelona Regional was commissioned to develop various specific consultancy projects within the framework of the 2035 Lima-Callao Metropolitan Urban Development Plan (PLAM). The first refers to Costa Verde and consists of defining structural criteria to communicate this singular clifftop area with the city and revitalise and stimulate it. The second is an analysis to detect deficits in the current mobility situation and submit proposals regarding infrastructure, services and management. And the third consisted of proposals submitted for the 2019 Pan American Games regarding the location of the various villages and the associated mobility.



## NEW COSTA VERDE AREA STRATEGIC PLAN

CLIENT Municipality of Lima, Callao • PERIOD 2014 • AREA 25 linear km of coast, 830 ha



Costa Verde currently runs from the district of Chorrillos to San Miguel. This part of the coast of Lima is characterised by its very high cliffs and its expressway, which was constructed by reclaiming land from the sea. Although it is a highly developed coastline, it is also the site of one of the most singular relationships between a major metropolis and the sea. Socio-economically speaking, very different social situations can be found along the Costa Verde, ranging from the wealthy districts of Barranco and Miraflores to the poor districts of San Miguel and Callao.

Analyses from the environmental, mobility and urban development perspectives have resulted in the proposal of four lines of action to transform these 25 km of Lima's coast: the control and prevention of phenomena caused by the sea, such as swells and erosion; landscape architecture projects; the determination of uses suitable for the Costa Verde area; and a mobility system built into the natural space of the coast.

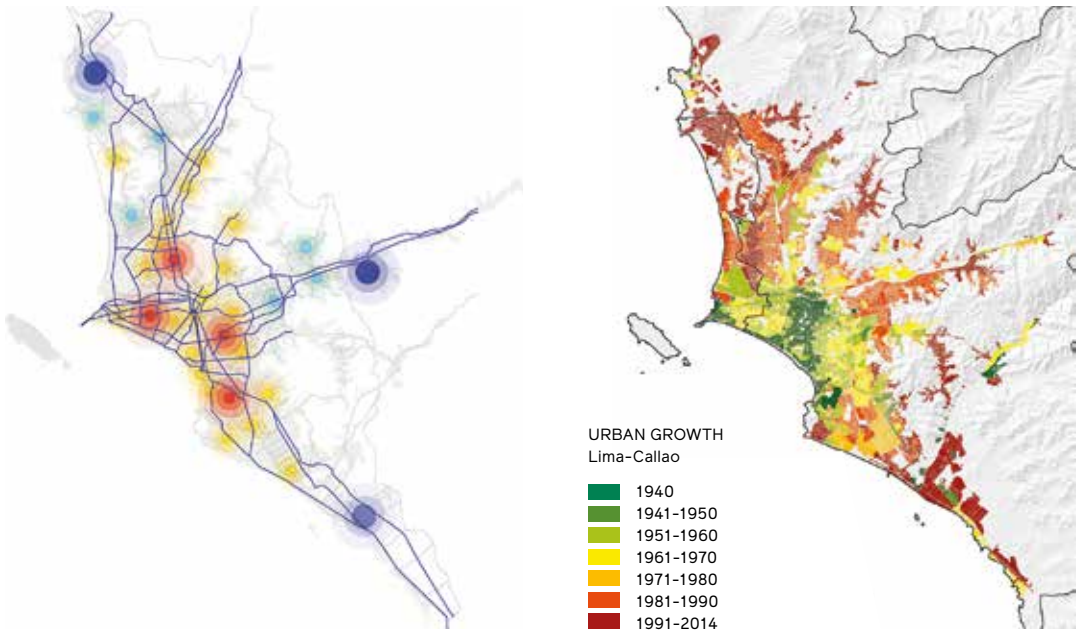


GENERAL MOBILITY, ACCESSIBILITY AND TRANSPORT PLAN  
FOR LIMA-CALLAO 2035

CLIENT Municipality of Lima, Callao (Peru) • PERIOD 2014 • AREA 100,000 ha

Lima is one of South America's major metropolises, with a population of nine million inhabitants. Mobility in metropolitan Lima is mainly based on collective transport, in which the majority of trips are made by bus, microbus or minivan. Lima is also served by two powerful collective transport corridors, the "Metropolitano" bus rapid transit system and Line 1 of its metro system. Despite this enormous diversity of means of transport, like many other major metropolitan areas, Lima suffers from a major increase in the number of private vehicles, resulting in increasingly dense traffic and often very high levels of congestion.

The Lima-Callao "Metropolitano" Plan encompasses a number of proposals planned on the metro-politan scale in relation to both collective transport and new roads. It also considers urban growth proposals, including activity transformation and concentration zones, with a view to implementing resources committed to safe, sustainable mobility and improving the quality of life of the citizens of Lima. The proposal also includes an analysis of the economic activity areas in Lima-Callao and specifically covers goods and markets with regard to the service they provide and in terms of mobility, location, functionality and future proposals.



PAN AMERICAN VILLAGE, LIMA 2019

CLIENT 2035 Lima and Callao Metropolitan Urban Development Plan (PLAM) • PERIOD 2014  
AREA 20 ha, 244,000 m<sup>2</sup> of buildable land, 2,000 homes



The city of Lima will host the 2019 Pan American Games. The event will include the participation of approximately 9,500 athletes from 41 countries in 40 different sports. This involves the improvement, adaptation and construction of a variety of sports facilities and the construction of a Pan American Village. The Lima Metropolitan Plan office commissioned Barcelona Regional to prepare a report on the various options for the location of the village, as well as planning that placed special importance on the legacy left behind by the event in the city.

# VIENNA

AUSTRIA

## CONCEPTUAL PROPOSAL TO REDESIGN THE VIENNA RINGSTRASSE

CLIENT Vienna City Council (Austria) • PERIOD 2015 • AREA 5.3 linear km

To celebrate the 150th anniversary of the Ringstrasse, Vienna City Council asked two external teams, Gehl Architects and Barcelona Regional, for a reflection and vision of the future in 15 years' time of this emblematic street in the Austrian capital. The Ringstrasse is not a conventional street, given that it separates the old town from the new city and the fact that rather than having conventional facades it is home to Vienna's main monumental buildings and green areas. This means that the continuous design of the street is important to equip it with monumentality and singularity and connect the various emblematic spaces that surround it.

Today the Ringstrasse is a great avenue mainly occupied by private vehicles with major accessibility for public transport, but not very welcoming for pedestrians and cyclists. The vision proposed by Barcelona Regional is to recover the Ringstrasse for the public and equip it with environmental quality by transforming it into a recreational and activity space and fostering its collective public transport options.

1



### PEDESTRIAN AVENUE

Priority, comfort and safety for pedestrians and cyclists, in a place that is easy to reach by public transport



### VIBRANT URBAN SPACE

Create an attractive and pleasant space to stay and meet, enhance the active participation of the citizens



### VISIBLE AND DISTINCTIVE RING

Improve the quality and legibility of its character through urban design

TAGS

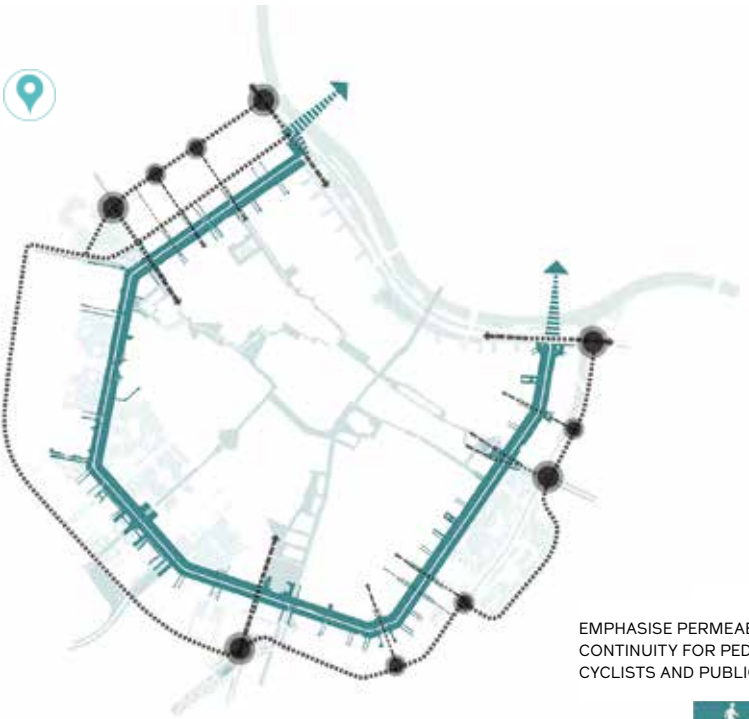
Environmental Quality, Landscape, Mobility, Public Space, Urban Development, Urban Strategy,

OBJECTIVE

Reflect, Design

258

2



EMPHASISE PERMEABILITY AND CONTINUITY FOR PEDESTRIANS, CYCLISTS AND PUBLIC TRANSPORT



LIMIT TRAFFIC AND ONLY ALLOW LOCAL ACCESS (museums, hotels, shops and residents)



3



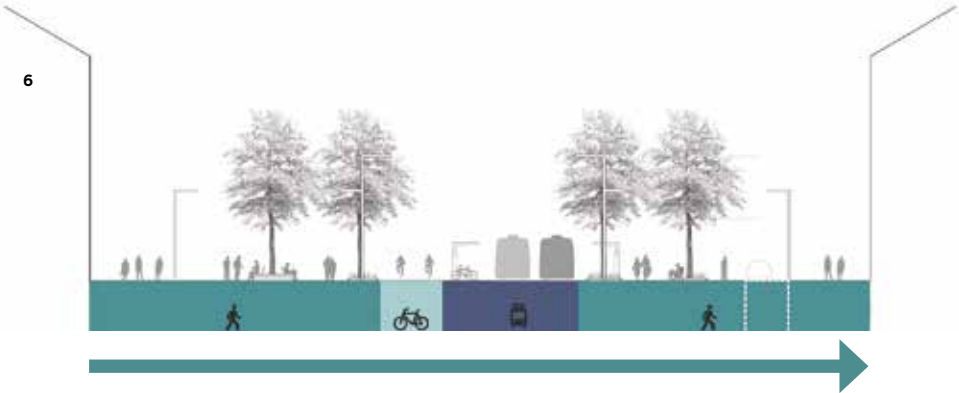
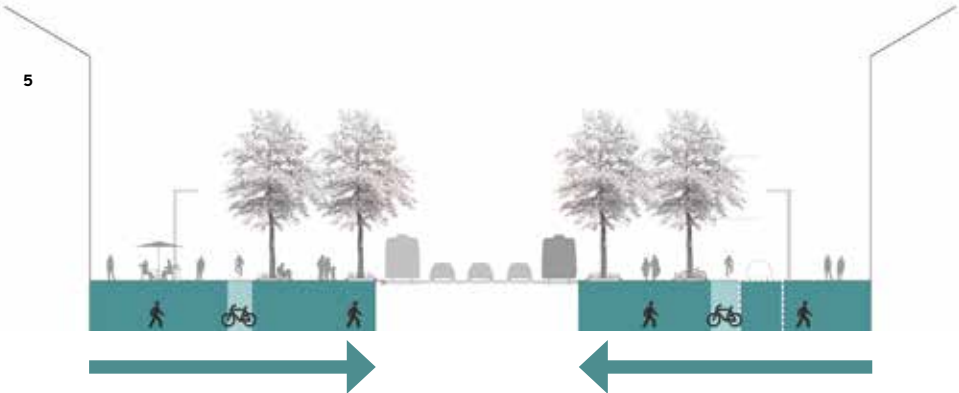
2. CONNECTIVITY AND PERMEABILITY STRATEGY

3. STRATEGY FOR THE INTERFACES BETWEEN THE ROAD AND THE OPEN SPACES

1. TRANSFORMATION STRATEGIES

259





4. CURRENT STATE OF THE RINGSTRASSE.  
CROSS SECTION

5. PHASE 1: REMOVE THE CAR PARK TO PROVIDE A  
WIDE PAVEMENT FOR PEDESTRIANS AND CYCLISTS.  
CROSS SECTION

6. PHASE 2: REMOVE THE CENTRAL LANE TO  
MAKE WAY FOR A PEDESTRIAN WALKWAY.  
CROSS SECTION



7. VIEW OF THE CURRENT STATE  
OF THE RINGSTRASSE

8. RENDER OF THE NEW PLANNING  
PROPOSAL FOR THE RINGSTRASSE

# Futures



**JOSEP BOHIGAS**  
General Director (2016—...)

••

**‘BR’s fundamental contribution to the city of Barcelona and its metropolitan environment was to generate clear ideas to put forward proposals and projects for the transformation and improvement of the city’**

## THE FUTURE IS HERE...

When someone asks us what we think the Barcelona of the future will look like, we often reply (and show!) that it will look, very probably, almost exactly the same as the one we have now. Clearly, things will change, but we expect that these things will be mutations of today’s great opportunities. We have seen and heard many visionaries sketch their cities of the future, where almost everything is new, where everything has changed, where all today’s problems have been removed in a new and brilliant image of the future. These absolute visions are disturbing because they are based on tremendously pessimistic responses about how to manage our own contradictions.

The city of the future is the one we want to live in. A disconcerting, complex, unfinished and imperfect reality that needs to be understood and, of course, permanently recycled to adapt to the times. Today, what we demand is not that its appearance should change, but that the way in which we interpret it, how we use it and how we share it should radically change, based on the indubitable qualities it already has.

## THE FUTURE IS COMING...

Additionally, the dense conurbation that is Barcelona has increasingly fewer opportunities for physical transformation, and every day more importance is attached to a greater metropolitan reality, made up of the sum of cities seeking more coordination and protagonism in order to stop being merely the receivers of externalities that do not fit in Barcelona. Today, we are about to have a new Urban Development Master Plan (PDU) <sup>7</sup> that will confirm this metropolitan commitment and balance. But some people already find it insufficient, seeking a regional vision that embraces and coordinates more municipalities than the 36 that form the Barcelona Metropolitan Area (AMB).

For 25 years Barcelona Regional has been working in this broad territory trying to sew fragmented urban realities back together and proposing future solutions for the metropolitan city. In the next 25 years my prognosis is that the agency will continue doing exactly the same things, but we hope that then the Metropolitan



Area or Metropolitan Region will be political realities that are mature enough to overcome all of today's difficulties and make progress with strategic and communal projects.

The book you have in your hands, which concludes with this text, aims to offer a compendium of the works and the protagonists who have developed them at Barcelona Regional for 25 years, forming part of the city's substantial evolution. The next book (presented jointly with this one) aims to take a leap forward in time, projecting the agency's work over the next 25 years using the Rondes of Barcelona (RB) as its case study. The intention is to lay out the major challenges facing the city, starting with the first of the boundaries that delimit the metropolitan city.

If in the 19th century Barcelona made a qualitative and quantitative leap forward with the demolition of the medieval walls, enabling the construction of the Eixample district and the annexation of neighbouring municipalities, then in the 21st century we are now facing the major challenge of constructing the bases of the next major change in scale, in which we will expand beyond our new "city walls", the ones encircling the territory with urban motorways. These city walls will probably not have to be demolished, but they will certainly need to adapt to new mobility and health paradigms, enabling the dissolution of the main physical, political and socio-economic barriers to form a territory shared by all the neighbourhoods of the metropolis.

We must say farewell by thanking everyone who has made it possible for this agency to survive for so long with such quality and intensity. It is a privilege to be able to permanently design the city over time, predicting what the future can offer us and proposing new scenarios to deal with the enormous challenges we are facing.

We hope that Barcelona Regional can continue helping, as it has done so far, to make the metropolis a better place to live.

••

**'For 25 years Barcelona Regional has worked in this broad territory trying to sew fragmented urban realities back together and proposing future solutions for the metropolitan city. In the next 25 years my prognosis is that the agency will continue doing exactly the same things, but we hope that then the Metropolitan Area or Metropolitan Region will be political realities that are mature enough to overcome all of today's difficulties and make progress with strategic and communal projects'**

# OBJECTIVES

The more than 2,000 works that Barcelona Regional (BR) has produced since its establishment can be grouped according to the objectives in this document. These objectives are represented by five actions, which describe the various functions that BR can carry out: observe, reflect, plan, design and communicate. Some of the works simultaneously respond to more than one objective.

**COMMUNICATE**

Prepare publications, exhibitions and conferences on developed projects in order to share knowledge and foster debate between institutions, professionals and the public.

→ Pages: 127, 133, 152, 187, 197, 220, 242, 248, 249, 250, 253

**DESIGN**

Design and budget the physical transformation of a space, infrastructure element or territory (urban and infrastructure projects).

→ Pages: 104, 110, 112, 118, 138, 150, 167, 170, 180, 194, 196, 198, 206, 208, 252

**OBSERVE**

Collect data and analyses of urban evolutions, anticipate dynamics and good practices implemented in other territories in the world, prepare documents to serve as the base of future plans or urban policies (cartography, atlases, software...).

→ Pages: 130, 131, 144, 159, 188, 226, 228, 230, 232

**PLAN**

Design programmes, resources and schedules to organise the transformations of a territory and its dynamics over time (plans).

→ Pages: 104, 112, 116, 118, 128, 129, 131, 132, 136, 141, 153, 154, 156, 158, 159, 178, 186, 189, 192, 194, 201, 211, 221, 222, 223, 224, 226, 228, 229, 255, 256, 257

**REFLECT**

Prepare diagnoses that question the current dynamics of the territories and propose strategies that enable the creative evolution of urban dynamics, facing the challenges of the present to improve the quality of the urban habitat (strategic studies, criteria documents, statements, institutional innovation...).

→ Pages: 112, 122, 126, 132, 134, 135, 140, 142, 143, 144, 145, 154, 156, 159, 162, 166, 167, 168, 172, 174, 182, 190, 192, 200, 201, 202, 205, 206, 208, 212, 214, 218, 230, 232, 234, 236, 238, 240, 241, 243, 244, 248, 249, 250, 251, 252, 253, 255, 258

The classification of Barcelona Regional's production has resulted in 25 tags that can be used to highlight the diversity of the work undertaken by the agency. These 25 tags also serve to explain how, over time, BR's catalogue of services has been enriched, introducing complexity into its projects and work methods.

# TAGS

**BIODIVERSITY**

→ Pages: 126, 131, 148, 150, 159, 162, 166, 167, 172, 174, 196, 198, 205, 220, 222, 223, 224

**CARTOGRAPHY**

→ Pages: 130, 144, 220, 230, 232, 242

**CLIMATE CHANGE**

→ Pages: 128, 129, 130, 131, 142, 201, 212, 214, 218, 222, 223, 224, 226, 230, 240, 248, 250

**DIGITISATION**

→ Pages: 118, 128, 129, 130, 212, 226, 229, 230, 232, 241, 242

**ENERGY**

→ Pages: 127, 128, 129, 130, 131, 142, 156, 178, 194, 212, 214, 218, 222, 229, 230, 240

**ENVIRONMENT**

→ Pages: 120, 126, 127, 148, 158, 159, 162, 166, 167, 172, 174, 187, 190, 196, 205, 214, 218, 220, 221, 222, 223, 224, 226, 228, 236, 250

**ENVIRONMENTAL QUALITY**

→ Pages: 126, 127, 128, 129, 130, 131, 135, 141, 148, 154, 156, 158, 159, 162, 166, 167, 172, 178, 182, 188, 189, 190, 192, 194, 196, 201, 212, 214, 218, 220, 221, 222, 223, 224, 226, 228, 229, 230, 240, 241, 218, 219, 250, 252, 253, 255, 256, 257, 258

**HOUSING**

→ Pages: 116, 132, 136, 153, 154, 156, 159, 168, 208, 212, 214, 232

**INCLUSIVE URBAN DEVELOPMENT**

→ Pages: 133, 159, 205

**INDUSTRY**

→ Pages: 116, 144, 145, 182, 218, 224, 242, 243, 244

**INFRASTRUCTURE**

→ Pages: 104, 110, 112, 116, 118, 127, 128, 131, 135, 138, 140, 141, 142, 143, 144, 145, 148, 154, 158, 159, 178, 180, 182, 194, 197, 200, 201, 206, 208, 211, 218, 221, 226, 228, 229, 234, 236, 238, 240, 241, 213, 248, 249, 250, 251, 252, 253, 255, 256

**LANDSCAPE**

→ Pages: 104, 110, 112, 120, 126, 133, 148, 152, 154, 156, 159, 162, 166, 167, 170, 172, 174, 187, 190, 192, 194, 205, 208, 214, 220, 221, 253, 255, 257, 258

**LITTORAL**

→ Pages: 131, 145, 148, 152, 154, 158, 178, 180, 186, 187, 188, 189, 190, 192, 194, 196, 197, 198, 200, 201, 208, 253, 255

**MOBILITY**

→ Pages: 104, 110, 112, 118, 120, 127, 129, 133, 135, 138, 140, 141, 143, 144, 153, 154, 156, 159, 162, 166, 167, 172, 178, 180, 182, 187, 190, 192, 194, 197, 200, 201, 206, 208, 211, 212, 214, 218, 221, 222, 229, 230, 234, 236, 238, 240, 241, 243, 244, 248, 249, 250, 251, 252, 253, 256, 257, 258

**PUBLIC SPACE**

→ Pages: 104, 110, 112, 116, 118, 120, 126, 133, 134, 136, 138, 148, 152, 153, 156, 158, 159, 162, 166, 167, 168, 172, 174, 186, 187, 188, 189, 190, 192, 194, 197, 198, 205, 208, 211, 253, 255, 257, 258

**RESILIENCE**

→ Pages: 133, 159, 172, 174, 192, 201, 229, 131, 188, 222, 223, 224, 226, 228

**TERRITORIAL STRATEGY**

→ Pages: 172, 178, 180, 182, 187, 190, 221, 218, 220, 226, 228, 234, 238, 240, 241, 243, 248, 249

**TERRITORY**

→ Pages: 218, 220, 221, 222

**TOURISM**

→ Pages: 120, 134, 135, 136, 187, 189, 190, 192, 201, 205, 218

**URBAN DEVELOPMENT**

→ Pages: 104, 110, 112, 116, 118, 132, 133, 135, 141, 142, 144, 153, 154, 156, 158, 159, 162, 166, 167, 168, 170, 172, 174, 178, 182, 186, 187, 190, 192, 194, 197, 200, 201, 208, 211, 214, 224, 232, 236, 240, 243, 244, 249, 250, 251, 253, 255, 256, 257, 258

**URBAN METABOLISM**

→ Pages: 127, 128, 129, 131, 194, 226, 228, 229, 250

**URBAN PROJECTS**

→ Pages: 104, 110, 112, 138, 158, 159, 170, 192, 194, 197, 198, 249, 251, 253, 257

**URBAN STRATEGY**

→ Pages: 112, 127, 132, 133, 134, 135, 136, 140, 141, 142, 144, 145, 154, 158, 159, 162, 166

**WASTE**

→ Pages: 127, 226, 228

**WATER**

→ Pages: 127, 131, 148, 152, 156, 158, 159, 178, 187, 189, 190, 192, 194, 198, 220, 222



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