

## Gardening, Low environmental impact maintenance contract for city parks – Barcelona

### Background

The Metropolitan Area of Barcelona is responsible for aspects such as infrastructure, territorial and urban planning, transport, waste management and treatment, water supply, environmental protection, social housing, social cohesion, and enhancing the economy of the metropolitan area. The Environment Department and the Directorate of Environmental Services have been working on Green Public Procurement since 2007, with a commitment to include environmental criteria in all contracts. They provide information on responsible purchasing in the form of a [guide](#) and also a dedicated website: [www.compraresponsable.cat](http://www.compraresponsable.cat).

### Procurement objectives

The Metropolitan Area of Barcelona published a tender with the aim of establishing a comprehensive service contract for the maintenance of parks in the Barcelona Metropolitan Area. This includes 36 municipalities and a total area of over 2 million m<sup>2</sup>. In order to make this more manageable, the tender was divided into three geographical lots. The services which come under the contract include: gardening and maintaining furniture, pavements, facilities and buildings located within the network of parks in the metropolitan area. The contracts awarded are worth approximately €41 million over six years.

### Criteria used

**Subject matter of the contract:** Maintenance services for the parks in the Barcelona Metropolitan Area during the period 2014-2020.

The contract was divided into three lots according to the following geographical areas.

**Llobregat Area** = 1,088,500 m<sup>2</sup>

**Besòs Area** = 550,8008 m<sup>2</sup>

**Singular/specifically named spaces** = 388,671 m<sup>2</sup>

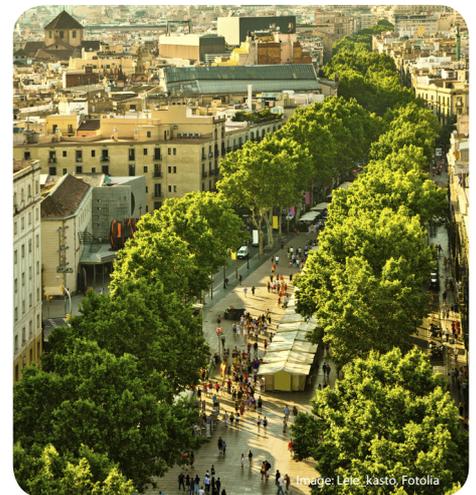
**Total area** = 2,028,000 m<sup>2</sup>

An open tendering procedure was used. The following general objectives were stated for the contracts:

Management of waste including grass and foliage, soil rubble and sludge is stipulated in the technical specifications. The service is required to be run in accordance with Quality and Environmental Management Systems.

The use of sustainable products, including lubricants and chemicals, as well as sustainable packaging is either required or encouraged. The same applies to the efficient use of facilities and resources including energy, water and textiles.

The service is required to be carried out with low noise emissions. Dust and air pollution emissions associated with vehicles and gardening machinery must also be kept to a minimum.



### Technical specifications:

#### Environmental and Quality Management Systems

The parks are to be run in accordance with [ISO 9001:2000](#) and [ISO 14001:2004](#) standards or equivalent. The contractor is required to comply with the procedures established by these standards, including any future amendments which are made to them.

### Cleaning

- Graffiti: Chemicals or abrasives used must not interfere with plant life. Unless the surface specifically requires otherwise, chemicals should only be used as a last resort for removing graffiti.

### Waste Management

- Foliage: A gathering point for plant clippings is to be predefined and organic waste must be composted.
- Lawn mowing: All cut grass shall be immediately removed and composted. No plastic bags are to be used as part of this process.
- Pruning: When waste plant materials are generated during tree and hedge pruning, the contractor must have a system in place that allows all branches that are less than 5cm thick to be crushed, and this waste to be composted. No plastic bags are to be used as part of the process.
- Any soil and rubble which needs to be disposed of can be reused by the contractor.
- Sludge: The contractor will be responsible for the removal, transport and management of sludge from lakes and streams. The contractor can reuse these materials as fertilizer, as an alternative to taking these to the landfill site.

### Inspections

The contractor must conduct daily visual checks of the properties to detect any leaks or contamination to water facilities and any damage to plants.

## Contract performance clauses:

### Sustainability Criteria and Environmental Quality Parameters

The winning supplier is responsible for the continuous improvement of environmental management, including the following best practices:

#### Sustainability in the use of products and packaging

(Paints, cleaners, pesticides, etc.)

- Promoting green and eco-responsible purchasing and the use of eco-labels (e.g. Environmental Quality Emblem, the EU Ecolabel, the Nordic Ecolabel, etc.).
- The use of lubricants for motor vehicles with a minimum content of 20% reclaimed base oil.
- The use of lubricating oils and greases in open applications (networks, hydraulic systems, two stroke engines, etc.) with the compositional requirements, biodegradability, aquatic toxicity and bioaccumulation potential defined in the EU Ecolabel or equivalent.
- The use of products with low toxicity, avoiding irritants, corrosive products and those that can cause the emission of greenhouse gases (i.e. CO<sub>2</sub> and CO, aerosols) and/or contain other hazardous compounds.
- Avoid the use of products which are classified as very toxic (R26, 27, 28), toxic (R23, 24, 25), carcinogenic, mutagenic or affecting reproduction (R45, 46, 49, 60, 61) or which present the danger of very serious irreversible effects as a result of prolonged exposure (R39, R48) according to Directive 67/548/EC.
- Avoid the use of products classified as H300, H310, H330, H312, H332, H314, H315, H318, H319, H334, H317, H340, H341, H350, H351, H360, H361, H370, H371, H372, H373, H304, H400, H410, H411, H412, H413 according to Regulation (EC) No 1907/2006 of REACH and modifications to the Regulation (EC) 1272/2008.
- Avoid the use of products classified as very toxic (T+), toxic (T), corrosive (C) harmful (Xn), irritants (Xi with R41, R42 and / or R43) dangerous to the environment (N) according to Directive 1999/45/EC.

#### Efficient use of resources and facilities

- Energy savings: Minimise energy consumption including heating and lighting e.g. through the use of LEDs.
- Water savings: Minimise water consumption with an economiser. Introduce control systems for leaks.
- Minimise the impact and use of materials: Products should be used that have a low environmental impact, have organic labelling or are certified biodegradable. Promote the reduction of materials used in all services, including office supplies used in offices.
- The contractor will promote the use of eco-labelled products and have a policy as regards respecting the basic rights of employees and ensuring commitment to environmental management and risk prevention.
- The contractor will promote the use of natural fibers and/or clothing with environmental certification in purchasing the work uniform.

#### Air pollution: emissions, dust and noise

- All machinery provided must have low emissions of noise and harmful gases, as specified by the certificate of approval on the machine (a CE type approval certificate) and the 2000/14/EC Directive which relates to the emission of noise from outdoor equipment in the environment. Regular maintenance must be carried out on all machinery.
- Engine should only be left running for the amount of time it is strictly necessary to carry out the related task. The engine must be

turned off, if the vehicle is not in use for more than 3 minutes.

- Eco-driving: Vehicles must be driven without sudden acceleration and at a reduced speed.
- All equipment is subject to a periodic inspection to ensure they meet the Technical Inspection of Vehicles standard in terms of gases and fumes.
- The permissible emission limits established in the plan for improving the air quality in the Metropolitan Area of Barcelona from 2011-2015 must be adhered to.
- When there is strong wind, operations involving the use of materials that can generate dust must be avoided

In order to demonstrate their compliance with these conditions, the winning supplier must submit a signed declaration stating that they are aware of:

- [The Environmental Policy of the Metropolitan Area of Barcelona](#)
- The Environmental Standards and Laws adhered to by the Metropolitan Area of Barcelona.
- Environmental hazards in the area and the Emergency Plan of the Metropolitan Area of Barcelona.
- A form indicating the way in which the supplier will control what types of chemical products are used and guarantee what substances they contain, as well as information on the storage and use of chemicals.
- Certification demonstrating that personnel have the relevant education, training and experience in the environmental field.
- That they will inform and train employees as regards environmental awareness, particularly in relation to all aspects of sustainability and proper waste management.
- That they accept that the Metropolitan Area of Barcelona may request the calculation of environmental quality indicators such as the carbon footprint of the services provided.

## Evaluation of performance:

The Metropolitan Area of Barcelona will evaluate the quality of the service being provided on a monthly basis. The above recommendations and requirements outlined in the description of works are used as criteria by which to assess the contractor in charge of each lot. The quality is scored as part of a comprehensive maintenance analysis carried out at each park according to the following model, called the Quality Park Index (IQ). The IQ varies for the different lots:

Individual spaces:

$IQ = 35\% \text{ gardening} + 15\% \text{ furniture} + 10\% \text{ pavements} + 15\% \text{ facilities} + 20\% \text{ buildings} + 5\% \text{ company services}$

Besòs and Llobregat Areas:

$IQ = 25\% \text{ gardening} + 20\% \text{ furniture} + 15\% \text{ pavements} + 20\% \text{ facilities} + 15\% \text{ buildings} + 5\% \text{ company services}$

If the service provider gets a score of  $IQ \geq 40$  at a park, it is considered that the quality is acceptable. If, however, a park gets an  $IQ < 40$  it is considered that the level of quality is unacceptable or critical. If a sector and/or park is determined to be 'critical' deductions to payment can be applied depending on the severity and type of discrepancy. If at the Individual Spaces, two or more parks are considered to be critical, then the whole sector is considered critical. The same is true in the Besos Area if three or more parks are considered critical and in the Llobregat Area if four or more parks are considered critical.

## Results:

The Metropolitan Area of Barcelona received eleven offers for the Llobregat Lot, 9 for the Besòs Lot and 11 for the Lot for Singular Spaces. The number of applicants was comparable to the number that applied for previous gardening maintenance tenders.

The Metropolitan Area of Barcelona felt that applicants for this procurement procedure were greatly aided by the fact that the specified standards requested in the tender documentation were all published on the Metropolitan Areas website. However, bidders did have many questions, particularly in relation to the requirements for vehicles, machinery and waste management. When the tender was published, bidders were invited to attend a meeting where they could raise questions in relation to these aspects of the tender. Fourteen bidders attended the meeting and the questions and answers were subsequently made available to all potential applicants.

This contract began in June 2014, with a different contractor carrying out the service for each lot. The contract will last for a total of 72 months and each service provider will be evaluated as set out in the contract clauses above.

## Lessons learned

The Metropolitan Area felt that this was an especially complex process due to the scope of the contract. However, for such an important procurement with a large budget, which is directly related to the cities' parks and green spaces, it was of utmost importance to include green criteria in all aspects of this contract.

The organisation recognises that it has achieved a lot but also that it will be necessary to constantly monitor the contract and recognise where even further green criteria can be added for the next procurement.

The establishment of clear monitoring systems for all parks will serve as an effective contract management tool as both the authority and the contractor have a clear idea of what is expected, and the consequences of non-compliance.

For more information, please see technical background criteria and EU GPP criteria for [Gardening Products and Services](#).

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## Environmental impacts

There are many environmental impacts associated with the maintenance of green urban spaces including high rates of water consumption for irrigation, high organic waste generation arising from mowing and pruning, and pollution from chemical fertilisers. Also, associated vehicles and gardening machinery that run on fossil fuels contribute towards local air pollution, GHG emissions and noise pollution.

These and other aspects discussed in the EU GPP Criteria for Gardening products and services can be minimised by inserting the appropriate requirements in the tender documentation and ensuring that these are upheld throughout the lifetime of the contract.