

**CASE STUDY TITLE:** Rennes Urban Greenspace Differentiated Management

**SECTOR:** Urban Greenspace  
**COUNTRY:** France

**BACKGROUND**

Rennes is a university town of 212 000 inhabitants which extends on 50.22 km<sup>2</sup>. With more than 7.94 km<sup>2</sup> of greensapce, 100 000 trees, 660 family gardens, Rennes is a green city (data 2002). Since the 1980's, the city has adopted a quality approach. For this reason, it has developed an extensive management of the greenspace contrary to the intensive practices which is the rule in France impregnated by the pattern of "jardins à la française". Thus, Rennes is one of the first French towns to implement a greenspace differentiated management inspired by experiments carried out by some cities of Northern Europe.

This quality approach results in (tab. 1, fig. 2 & 3):

- a specific management of the greenspace, in close link with their geographical localization, their use and their history (maintenance adapted to each case according to Rennes context);
- a soft management of the vegetal compositions and landscape units (lawns mowing, hedges trim, trees pruning, ponds clearing),
- an ecological design of flowers beds and stand in downtown areas

Greenspace type	Class	Definition (maintenance type)	Area %
Flower stand	0	Flower stand located apart from a greenspace (neat maintenance)	0,01 %
greenspace with marked horticultural vocation	1	Prestige greenspace located in a very attended public place (maintenance very neat and significant flower)	1,43 %
greenspace with simple horticultural vocation	2	Traditional greenspace with neat aspect (limited maintenance and flower)	7,65%
Traditional greenspace	3	Greenspace with simple design, rustic, regularly maintained (simple and regular maintenance)	41,79 %
Rustic greenspace	4	Greenspace with moderate maintenance (reduced maintenance).	34,63 %
greenspace - pastoral vocation	5	Pastoral greenspace, with rustic aspect, supporting an extensive maintenance (summary maintenance)	8,97 %
greenspace - agricultural vocation	6	Arable land (agricultural maintenance)	5.53 %

*Table 1: Greenspace classes of Rennes town according to differentiated management*

This new conception of differentiated management is more ecological. The cultivation methods are directed to increase greenspace biological potentialities, to ensure multiplication of shelters to favour fauna and flora as well as to manage natural resources more sparingly.

## EVALUATION

Differentiated management makes it possible to improve the offer of greenspace available in the urban fabric without increasing the number of gardeners (in 1977, 393 ha were managed by the municipal parks and gardens services, in 1997, 780 ha, that is to say, double). Moreover, this management has widened the scope of parks and gardens, has introduced new landscapes and new natural rural habitats in the city (meadows, ponds, etc). Rennes has set up biological corridors and green malls in order to increase the diversity of natural infrastructures. This green frame has been used to extend pedestrian and cyclists thoroughfare, to increase the presence of natural elements in the urban fabric.

The evaluation related to environmental, economic and social dimensions.

### Environmental dimension

- **Water:** Its preservation is ensured by a reasoned and integrated management (reduction in the frequency of watering and water quantities), by a protection of the springs and drinking water collecting areas, and by a source control of green waste production and/or pollutants emissions. The immoderate use of manure, pesticides and weeding is a significant source of water pollution in the urban environment. The moderate use of pesticides and the use of alternative techniques should tend to decrease this type of pollution.
- **Soil:** The differentiated management has a driving effect. It enhances the territory, the protection of the suburban forests, the urban landscape preservation. It generates an increase of managed surfaces and a better distribution of greenspace over the whole urban surface.

- **Vegetation wastes:** those vary according to the type of vegetal structure, the quantity decreases with a minimum maintenance and with the rational use of manures.
- **Biodiversity:** greenspace management integrates protection and increase of the biodiversity (news hedges with various layers, herbaceous edges on pond banks (Cf. fig. 2)).

### Economic dimension

Differentiated management has been a means of setting up cost accounting of day to day greenspace management and maintenance tasks. The software tool makes it possible to establish financial calculation of maintenance and to highlight the average annual maintenance costs for each maintenance class (1, 2, 3...). On the one hand, one can note, that the extensive lawn is cheaper than an intensive lawn. On the other hand, within the ten years, between 1979 and 1989, the costs fell by 25% for spaces with marked horticultural vocation (class 1) and those with simple horticultural vocation (class 2) and from 60 to 65% for the extensive greenspace and those of a rustic vocation (class 5). The economical aspect is more noticeable for these last types (fig.1). Personnel productivity is a relevant indicator to measure the profits released by a differentiated management. It passed from a ratio of 1.01 ha/gardener/year (386 employees for 393 ha) in 1977 to 2.06 ha/gardener/year (378 people for 780 ha) in 1997. Differentiated management proves to be a partial response to the economic problems of the cities (reduction in manpower and credits).

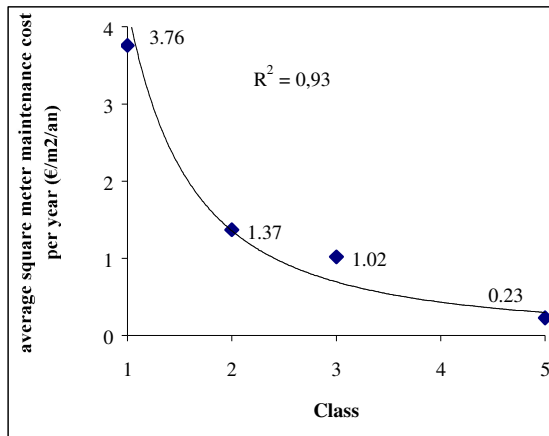


Figure 1. The average square meter maintenance cost per year (€/m<sup>2</sup>/an)

### Social dimension

- Taking into account social request related to park and historical gardens attendance as well as aesthetic and cultural links which make the charm of parks and gardens in the downtown area of Rennes.
- Recreation: the possibility of practising sports activities, recreational activities in open air, relaxation activities in greenspace close to its residence (parks, gardens, public gardens, sports field, etc.), to be in permanent contact with diversified natural spaces (lawns, meadows, forests, etc.) take part in the improvement of inhabitants's life.
- Education, training: the presence of nature in the city familiarizes young people with nature. School camps can be organized, on site practical work via school. The children become aware of the stake, which will make them more responsible when they reach adulthood.

Certain private individuals adopted differentiated management in their own private gardens. They increased the range of shrubs and decorative plants in "copying" the principles of design and in "imitating" plant compositions developed, here and there, by the town of Rennes.

### Communication, information, dialogue

- The public: public information has been done through various means (municipal newspaper, radio programs, exhibitions, open days, guided tours, information installation, panels, etc.). Dialogue has been organized using public meetings, investigations, discussions with citizens and associations.
- The personnel: gardeners information and training are of primary importance for the success of differentiated management (professional practices modification, acquisition of a good knowledge of biological balances, etc). The publicity campaigns were carried out using an audio-visual set up, guided tours, on site supplemented meetings. Thus the personnel have maintained a regular assessment of the carried out tasks and of greenspace evolution. This enabling the monitoring of the device effectiveness and correcting its main defaults.

### BENCHMARK DATA

There are no national standards on differentiated management. Greenspace designers and managers must nevertheless conform to a general technical document to which the public markets refer.

However the experiment of Rennes took as a starting point European examples carried out in Netherlands (Zwolle, Zotermer), in Switzerland (Zurich, Lausanne, Geneva) or in Germany (Augsburg, Freiburg).

### DRIVERS

The project and its practical application has been carried out and coordinated by the park and garden Services of the town of Rennes. The legal framework on a national scale concerning greenspace management is weak, even non-existent. In fact city planning documents preserve the existing greenspace (inconstructible

zone) and the creation of new ones (land reserve).

Rennes urban greenspace differentiated management falls within a sustainable development policy (environmental respect, taking into account of the inhabitants request to have local natural greenspace, maintenance expenses discount). Its objective consists in meeting the needs of an increasing social demand for nature in downtown, without increasing the cost of this service by raising local taxes.

### LESSONS LEARNT

The two principal barriers to a good greenspace differentiated management are as follows:

- the inhabitants, at least in France, remain very attached to greenspace cleanliness and to a model dominated by a structured and ordered garden. This is why, the installation of a differentiated management must be progressive, graduated, to proceed by small successive steps, to take into account the social context and surrounding urban fabric.
- greenspaces are an urban facility of general interest. They have social, cultural, ecological, and landscape functions. Differentiated management implies a minimum of support from the inhabitants. This implies information and dialogue which have to be unceasingly renewed with the residents, the users, associations, teams of gardeners and local councillors.

### APPLICATION

For several years, many French cities have followed the example of Rennes: Orleans, Nantes, Montpellier, Mulhouse, Lyon. The French Territorial Engineers Association (AITF), the National Centre of Territorial Staff Training (CNFPT) as well as the Parks and Gardens Directors Association are good conveyors for communication, to inform and share the experience feedbacks. Certain cities tried to apply this

innovative approach hastily, without any prior preparation or trained their gardeners for their new trade. As a result: the inhabitants have the feeling that the greenspaces are not as well kept as than before and to show their disapproval they press councillors to end the experiment.

Using differentiated management implies taking into account the local context (citizen's perception, employees's training, proper governance). A demonstrative area could be a sensitization tool. Because of a lack of agreement between elected representatives, technicians and inhabitants, many cities do not try to realise this possibly failing experimentation.



Figure 2. An example of class 1 (Cf. Tab. 1) greenspace: Thabor Park

### TRANSFERABILITY

The experiment of the town of Rennes constitutes an adaptation of other European cities practices. It was in turn adopted and adapted to other French cities.

### IMPACT ON SUSTAINABILITY AREAS

This action does not have a strong irreversibility.

Environmental: high

Social: high

Economic: high

Institutional: medium



Figure 3. An example of class 5 (Cf. Tab. 1) greenspace: Gayeules pond. The high grass edges which girdle the pond are not mown in order to preserve ecotones

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