

Oliviero Tronconi,  
Andrea Ciaramella



# FACILITY MANAGEMENT

How to design, assess, purchase  
and manage services

*Real Estate*

FRANCOANGELI

## Informazioni per il lettore

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*Service is a social process. The management is the ability to direct social processes. Service companies are sensitive to the quality of their management probably more than any other type of organization. An important role of management is to identify the critical factors that allow a particular service system to function and design effective methods to control and consolidate these features in a concrete way. If the various components do not work in a proper way, no big project will succeed.*

Richard Normann, *Service management. Strategy and leadership in service business*, Wiley, Hoboken, NY, USA 1991



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## Preface

This book is the result of research, training and consultancy carried out by the authors as part of the Laboratory of GestiTec Politecnico di Milano. This activity dates its beginnings to 1989, when by a major national insurance company began a research, completed in 1990, concerning the “total cost of ownership” of a significant number of buildings.

The research results allowed our team to acquire a comprehensive framework on operating costs of some buildings divided by type: with surprise we noticed that operating costs were really high in relation to buildings overall cost and their market value.

At the same time a research on international papers and documents about building management was launched; it soon enabled us to find out how building management activities were fully developed in the Anglo-Saxon world (UK, US) and how these issues under the name of “Facility management “were the object of systematic investigation and academic-scientific publications.

In June 1995 at Politecnico di Milano was launched the first course devoted to Facility Management, which title was “Building Management. The management of buildings and real estate assets: technical, organizational and economic issues”.

Since then the educational activity on the subject has never ceased.

In recent years our work has continued thanks to the important contribution of many private companies and association such as Assolmbarda.

These partners have offered valuable opportunities for planning, training and researching within the field of Facility Management.

It is therefore thanks to them that university activity can grow in its ability to carry on research, transmit knowledge and thereby compete at national and international level, which is one of “our” Politecnico objectives.



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# 1 Facility Management: theory and practice

Before delving into Facility Management it is necessary to clarify the concept, which assumes very different nuances according to the different traditions and markets of the countries in which it is applied.

Facility Management is a U.S. derived practice, then imported into other countries of the world characterized by the presence of an advanced service. There are many definitions, below we indicate the best known.

According to the widely accepted definition in 1982 by the United State Library Congress of the United States, Facility Management means: ‘The practice of local / workspace coordination with the organization of the lost-they and their various activities; it integrates the principles of administration, architecture, psychology, engineering and economics’<sup>1</sup>.

Fig. 1.1 represents Facility Management as: “The practice of co-ordination and management that integrates the tasks and functions to” individuals, processes, places “within the enterprise or organization”<sup>2</sup>.

According to IFMA<sup>3</sup> (International Facilities Management Association), Facility Management is: «The practice of co-ordination between the place of work, the user and the type of work done by the companies; it integrates the principles of administration, architecture, psychology and engineering»<sup>4</sup>.

This definition can be schematically represented as in Fig. 1.2.

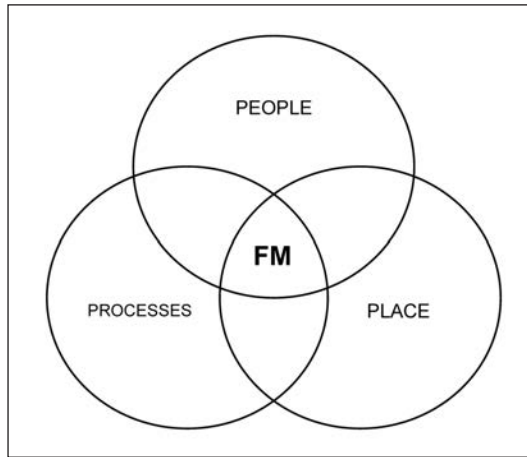
1. Rondeau E.P., Brown R.K., Lapides P.D. (1995), *Facilities Management*, John Wiley & Sons, New York, p. 3.

2. *Ibid.*

3. Ifma (International Facility Management Association), founded in 1980, promotes the philosophy of “efficient workplace, effective, safe and on a human scale”. Silicon Valley chapter of Ifma, 1982.

4. *Ibid.*





Source: Rondeau E.P., Brown R.K., Lapidis P.D. (1995)

Fig. 1.1 – Areas of facility management interest

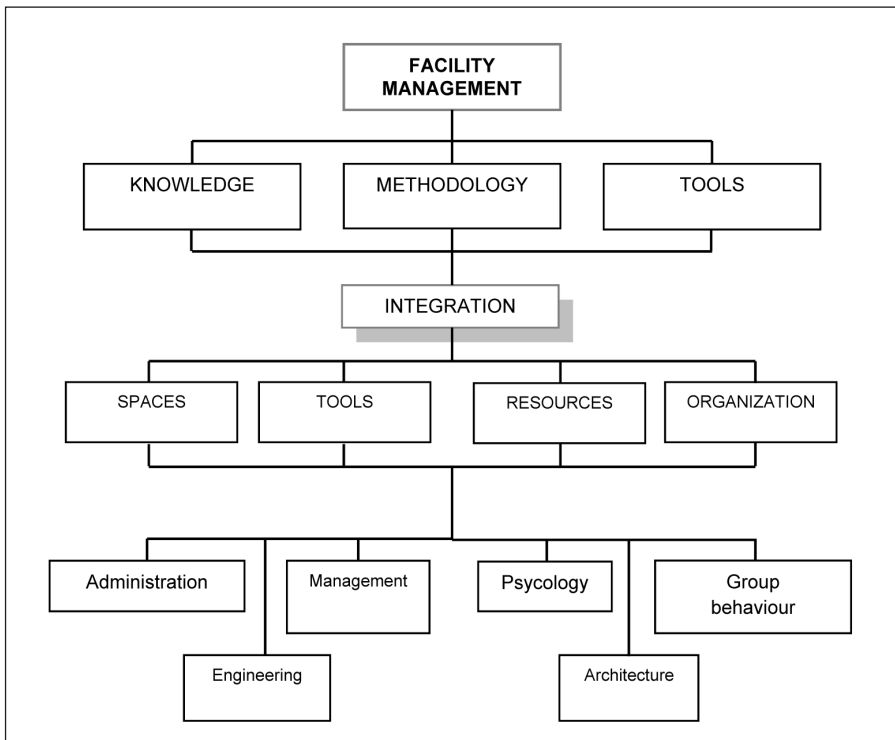


Fig. 1.2 – Facility Management activities

It is therefore evident that a Facility Manager has several responsibility, and should address multiple tasks<sup>5</sup>:

- the development of facilities of the company and their strategic planning;
- the coordination of redevelopment processes;
- supply management, relations with suppliers, the management and control of the services / facilities provided by them;
- supervision (planning and control) of all activities maintenance, improvement and re-engineering of the building / real estate systems.

Normally Facility Management services are divided into: building services, organization services, services to the people. Typically between Facility Management services we can mention: maintenance of technological systems, construction activities, internal transport, cleaning, green areas maintenance, canteen, security, waste disposal<sup>6</sup>.

Another definition helps us to articulate further the concept of Facilities Management: “Facility Management is the management, the physical structure of the building and its systems / equipment to be optimized connection between any type of business-management process and pro-end product: the functionality of the building. The product of Facility Management can be represented by a tangible service; in this case, the ‘product building-workspace’ earns in competitiveness and quality”.

According to the definition of an Italian author: “Facilities mean a whole range of structures, components heads, communication, transport, cleaning, catering departing or revolve around building complex, so the facility management concerns design and the management of all tasks and processes that occur in the space of a building life”<sup>7</sup>.

According to a well-known american author: “Facility Management represents an evolving strategy. The use of a building does not remain static over time; technologies change, products change, the business responds to the market then Facilities Managers must monitor and implement remedial action whenever the reporting of trends seem to indicate that the operations relating to the management of the building are moving away from planned levels”<sup>8</sup>.

5. Tronconi O., Ciarabella A. (2006), *Manuale del Facility Management*, Collana Real Estate, Il Sole 24 Ore, Milano.

6. Park A. (1994), *Facilities Management an explanation*, MacMillan, London, p. 1.

7. Porta L. (1996), “Il Facilities Management e la pianificazione integrata”, *Office Layout*, 67: 50.

8. Park A. (1994), *op. cit.*, p. 22.

[II] Facility Management (FM) is a strategy, a growing profession for all who have to do with the management of properties and of all the goods contained therein. It is a field of activity that takes into account the concepts of design, location and construction of the buildings, a facility / service with attention to the way in which it is used and how well it evolves over time depending on the capacity to respond to the demand for change expressed by the user<sup>9</sup>.

And again on Facility Management «Facility Management is recognized and affirmed above all thanks to its “effects”, first of all transactions involving the acquisition, design, construction and maintenance; then again thanks to the services and support operations to internal users and finally thanks to the presence of the physical facility»<sup>10</sup>.

All definitions presented here emphasize and highlight, every time, just some of the activities that can be attributed to Facility Management. Synthesizing, we can say that Facilities Management refers to activities that aim to create a safe and pleasant productive work environment that can respond to the long and short target period of enterprises and organizations.

It is clear that Facility Management encompasses a wide range of activities ranging from strategic planning services, the definition of its cost budget, from architecture to engineering, programming maintenance activities, workspace, including project management, renovation projects or new functions and, in general, the management of all the services necessary for the building, the organization and the people who are part of it.

It should be stressed that all these activities, now more than ever, are characterized by an increasing complexity and pose a growing challenge due to the changes taking place in business and organizational process. In fact, the continuous technological and market evolution requires extreme variability and higher quality in office work, while constantly emerging new regulations in the security of people in the workplace, in the features and functionality of all the technological systems.

9. *Ibid.*

10. The Facility Manager has many responsibilities; its tasks include:

- the development of the Facilities of the company and their strategic planning;
- the coordination of redevelopment processes;
- supply management, relations with suppliers, the ge-ment and control of the services / facilities provided by them;
- supervision (planning and control) of all the maintenance, upgrading and re-engineering of the building / real estate systems.

Rondeau E.P., Brown R.K., Lapidés P.D. (1995), *op.cit.*, p. 7.

## **1.1. Definition**

Facility Management (FM) is therefore that system of knowledge, methods, tools, enabling the optimum management of all the services for buildings/real estate assets, in close relation to the user's needs.

In particular, the practice of coordination of space/equipment at work with human resources and their overall organization (objectives, responsibilities); it integrates principles of administration, business management, architecture, engineering, psychology and knowledge of group behavior.

Normally Facility Management services are divided into: building services, services to the organization, services to the people. Typically between Facility Management services we can mention: technological installations operation and maintenance, electrical, special, networks, construction activities, internal transport, cleaning, maintenance green areas, canteen, security, supplies, waste disposal, and many others.

### ***1.1.1. Services delivered to people***

These are activities that aim to increase productivity, well-being and loyalty of those who work for the company and/or useful to the comfort of visitors.

Indicatively, the services may include: the restaurant business in its various forms – cafeteria, dedicated catering, meal service at the workplace; the break areas management; cleaning and environmental hygiene, rodent control and pest control. These services can be articulated: laundry service for employees, management of vending machines, nursery service, gym and fitness, etc.

### ***1.1.2. Services delivered to organization***

The objective of this family of services is to make sure that the workspace can be a useful infrastructure for the company, facilitating the creation of value, the processes of communication, socialization and the creation and circulation of knowledge. As you can imagine, then, this group of activities has a high level of complexity from the organization's point of view.

Among the services usually present: document management, management of the company car fleet, management of stationery;

organization of the reception and concierge, management accounting, payroll and contributions; post office and document reproduction, etc. Even the logistic activities may fall into this family.

This is the most activities that play a role and support staff to the core business of companies.

### ***1.1.3. Services delivered to spaces and buildings***

This area encompasses all activities aimed at the maintenance of the property and all its plants and facilities. The ultimate goal of these services is to ensure continuity of operation of the building in-known as “container” within which the company conducts its business in compliance with the regulations on health of the workplace, the safety and the rational use of energy.

Building services are those related to the maintenance of all the technological units of the property, both internal and external, such as maintenance of electrical, mechanical equipment, elevators systems, civil maintenance, maintenance of firefighting equipment, maintenance of green internal / external, etc.

In recent years, the focus on property services has increased considerably: it has developed, in fact, aware that the process maintenance and management, as well as ensuring conditions of viability and efficiency, helping to preserve the property value.

This family of services is particularly significant for manufacturing enterprises with high technological value, in which it has a special integration between building and production plants.

## **1.2. The evolution of Facility Management**

The increase of market competition have reinforced more and more over time the trend to outsourcing of auxiliary production facilities, provided that such services are provided on acceptable quantitative levels, guaranteeing cost savings and allow the possibility of a monitoring and systematic control by the contractor, therefore a continuous reporting of the results achieved: higher quality services guaranteed at a lower cost and always under control.

Unlike the past, when everything was “homemade” – that is, the vertical integration of all the factors of the production cycle, it is no longer necessary to carry out all activities related to the management of an