

# **MAINTENANCE & FACILITY MANAGEMENT OF REAL ESTATE AND URBAN PATRIMONIES: ITALIAN INNOVATIVE METHODOLOGICAL-SCIENTIFIC, EDUCATION, INFORMATION AND NORMATIVE INFRASTRUCTURES.**

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## **Key words**

innovation, infrastructures, facility management

## **Abstract**

*The market sector of Maintenance and Facility Management is distinguished by complex characteristics of innovation, dynamism and embraces a variety of disciplines. For this reason the correct development of Maintenance and FM, before the answers in terms of technological, and management solutions ("problem solving"), requires indispensable support and contributions in terms of methodological-scientific, education, information and normative infrastructures ("problem setting").*

*This is the basis of all the initiatives that Terotec, the "Laboratory for the Innovation of Urban and Real Estate Patrimony Maintenance and Management"<sup>1</sup>, has promoted, coordinated and realised since it was founded in 2002.*

*With the objective of giving tangible contributions in this direction, four innovative instruments are proposed in which Terotec has played a key role as promoter and creator:*

- *the UNI 11136 standard "Global Service for the maintenance of real estate patrimonies - Guidelines";*
- *the "Facility Management Lexicon";*
- *"Censiform", the first census on Maintenance and FM education offer;*
- *"CenTer", the first on-line Maintenance & FM documentation centre.*

## **1. The UNI 11136 standard "Global Service for the maintenance of real estate patrimonies - Guidelines"**

In Italy, as in other EU countries, the development of the management and maintenance facilities market seems more and more oriented towards externalization. At the same time the specific market sector connected to Global Service (contract system for maintenance and technical-managing facilities entrusted to third-parties on the basis of performance agreement) is standing out with an ever-growing use of technical-managing and maintenance facilities agreements in the real estate field based on the transfer of direct "responsability" of results to third-parties. Nevertheless there is an inadequacy of specific technical and procedural supports to uniform the market performance and to standardise by "consensual rules" the processes and the facilities finalized to the Global Service in the interest of all the parts involved.

The UNI 11136 standard "Global Service for the maintenance of real estate patrimonies - Guidelines" published in September 2004, is the result of two-years work. It derived from a standardization initiative promoted and coordinated by Terotec within the UNI (the Italian National Standardization Body), with the active copartnership of qualified public representatives (as the Instrumental Resources Department of the Presidency of the Council of Ministers, the Italian Mails, the Municipalities of Bologna and Modena), of the Facility Management contractors (as the ANCE National Association of Building Contractors, the FISE Federation of Services Companies and the Terotec promoting contractors) and of the academic

world (as the Politecnics of Milano and Torino, the Universities of Brescia and Venice - IUAV)<sup>2</sup>.

This standard defines the Global Service as "a specific form of externalization agreement based on results, by which a client entrusts a series of activities related to a building or to a real estate patrimony to single qualified contractor".

The Global Service regarding only the maintenance, specific field of standardization of this UNI project, here means "an integrated system of activities of building maintenance with a full responsibility assumed by the contractor on the results as the achievement/ maintaining of the performance levels pre-established by the client".

For this reason the object of the agreement of the UNI 11136 standard is the entrusting by a client to a contractor, for a limited period of time, of the complex of maintenance activities finalized to guarantee the pre-established levels of performance for a building or real-estate patrimony.

The UNI 11136 standard is focused in particular on the key-phases of the Global Service process:

- the preliminary planning phase (by the client)
- the definition of the offer request phase (by the client)
- the definition of the offer project (by the potential contractor)

The 11136 standard represents a fundamental "guideline" to set out the Global Service maintenance processes regarding buildings and real estate patrimonies, with the aim to uniform the approaches on a common methodological-practical reference basis.

This standard is the first guideline on the Global Service issued at an European level and with the other standards issued by the UNI STC 3, let Italy be in the vanguard of the technical standardization of the field.

## **2. The "Facility Management Lexicon"**

Several concepts and words of Anglo-Saxon origin are joined with the recent "rise" of the new facilities market of FM and of the integrated management of the real estate patrimonies. Still today, in Europe and in Italy, does not exist a consolidated and shared language. The specialistic Anglo-Saxon terminology is moreover used by the sector operators as a "virtual idiom" to by-pass a cultural delay and to support at the same time a new "real market".

In fact it is too recent the increase of interest of the operators coming from different categories around the subject "real estate patrimonies" and its technical and economic management.

The conceptual and terminological uncertainty is superimposed on the more general absence of a shared culture that crosses the subject of the real estate management.

This culture is still fragmented in disciplinary areas which have great difficulties in communication. Public administration, law, economy, industrial and business management and chiefly constructions: these are the key sectors that should interact to solve the problems of the real estate management.

The "Facility Management Lexicon", study promoted and realized by Terotec and published by Il Sole 24 Ore<sup>3</sup>, is an important methodologic and practical instrument rigorously planned and developed under the scientific point of view.

To pursue the promotion, the development and the diffusion of culture and innovation in the field of the management and maintenance of real estate and urban patrimonies it is necessary to formulate contributions finalized to the research of common lexical basis, to uniform the technical-specialistic language and to define/ share the significance of concepts and words characterizing the market.

One of the main aims of the "Lexicon" is to try to clarify under the conceptual and terminological points of view inside the accumulation of themes, subjects and procedures related to the technical economic and maintenance management of real estate patrimonies.

This book thus derived from an articulated project finalized with the engagement of the most important italian experts of the sector.

This Lexicon, the first terminological instrument set-up in Europe, is one of the reference basis for the works of the Commission TC 348 "Facility Management" of the CEN European Standardization Committee.

### **3. "Censiform", the first census on FM education offer**

The training of specific figures dedicated to the management of the technical-running services of real estates and urban patrimonies, today represents a vital aspect for the FM market in Europe. The rapid evolution of the market has not been matched by an adequate development in a specifically orientated managerial training.

As far as concerns Italy, there has been a progressive spread of initiatives involving universities as promoters of courses dedicated to the sector.

In this scenario, the first edition of Terotec's Censiform Report<sup>4</sup> aims to give an overview of the Italian education offer, referring to the year 2003, with regard to real estate management and maintenance in particular reference to Facility Management. By means of the "Censiform" project, Terotec intends to give a double contribution:

- to carry out a census of and systematically monitor the education initiatives in the sector;

- to present the characteristics and the evolution of the national offer in the sector resulting from the census.

The scenario that appeared reflects the transition phase that the Italian university system is going through the present reform process.

The education offer seems concentrated in the universities, in collaboration with companies and bodies, and distributed in master courses, refresher courses and post-graduate specialization courses.

The growth the offer reflects the increased attention paid to the needs emerging in the market of FM activities but it corresponds also to a lack of a precise didactic framework, often passively "following" the market tendency without supporting its growth in a "qualitative" sense. The education offer, often forced to pursue an increasing demand, has in some cases led to the conversion of traditional courses into specific courses without the necessary reorganization of the didactic contents. The greater involvement of companies, associations and grantors in the education offer is a positive sign, but it is necessary an effective and specific focussing.

Censiform is the start of an innovative project for education in the FM sector that Terotec intends to promote over a medium term with the support of the "network of competences" linked to it.

The education structure's model should be able to adequate itself to the changing of the demand and to the market transformations. The reference model could be a modular system "by catalogue".

The prospects of the project could be expressed in the following points:

- the monitoring of the "potential" education demand with the purpose of defining an update and ad hoc hypothesis of the professional figures to be created;

- a construction of an European "map" of the competences to be put in a strategic framework to realize didactic projects coordinated with the potential demand;

- the relationship between the "framework" of competences, the "catalogue" and the "places" of distribution, on one hand, and the demand for education on the other, have to be translated into ad hoc training projects.

### **4. "CenTer", the first on-web FM documentation centre**

The market of the management and of the maintenance of real estate patrimonies is in an accelerate growing phase without being accompanied by an indispensable increase, consolidation and up-to-date of the common basis of sectorial specialistic knowledge.

The operators ask for a parallel development process of the sector in informative, cognitive and documentary terms, to acquire the fundamental supports and

contributions for the raising of their own know-how and for the address more and more oriented to their respective activities.

The "CenTer" project, promoted and realised by Terotec<sup>5</sup>, has been finalized to realize the first Italian and European centre of documentation on maintenance and management of real estate and urban patrimonies.

In a viewpoint of promotion and diffusion of the technical sectorial know-how, CenTer would be considered as an instrument of observation, collection and redistribution of the informative and documentary patrimony produced inside the network of subjects working in the maintenance and real estate and urban patrimonies management field, whether at a national or extranational level and with the main field of application the processes, the models, the facilities, the technologies and the instrumentations that characterize the development and the innovation of the culture and of the market in the technical-managing-maintenance sector.

The methodological approach used in CenTer take inspiration from the Anglo-Saxon methodology for the support of the "competitive intelligence", through the selection and the transformation of the material collected in the different forms availables and accessibles to the final users in "informative systematized documents" directly via internet.

The project and the realization of CenTer ("documentary contents" + "computer container") has been developed in a two-years period through the progression of projection, construction, implementation, experimentation, improvement and activation of the service on line.

The user interface of CenTer, achievable also from special links in the istitutional Terotec site, will be realized by special web pages that will allow to accede to the "informative systematized documents" contained and managed by means of a database on line with a special search tool for multiparametric enquiries.

## NOTES

<sup>1</sup> Terotec ([www.terotec.it](http://www.terotec.it)) is an Italian "association-laboratory" of national importance, having as its institutional aim the promotion, development and propagation of innovation in the field of the maintenance and management of urban and real estate patrimonies, developing for this aim services of research, experimentation, training, the study of new standards, advice, information and promotion. The promoting partners (\*founding partners) of Terotec are: ANCE - National Association of Building Contractors\*, Condotte Immobiliare spa, Coopservice scooppa\*, FISE ASSIOMA - Advanced Managerial Organisation Integrated Services Association\*, Groma srl\*, Ingest Facility spa, Insula spa\*, La Fiorita srl, Manitalidea spa\*, Manutencoop srl\*, Openpl@n srl, Orion srl, Pirelli & C. Real Estate Facility Management spa\*, STI spa.

<sup>2</sup> Working-group UNI for the study and the formulation of the UNI 11136 standard: President: Prof. Claudio Molinari (Politecnico di Milano); Coordinator: Prof. Silvano Curcio (Terotec, University IUAV); Secretary General: Ing. Roberto Ravaglia (UNI); Referees: Prof. Angelo Ciribini, Ing. Angelo Guerrieri, Ing. Fiorenzo Guidoreni, Ing. Marco Mandarino, Prof. Rossella Maspoli, Arch. Pier Giuseppe Mucci, Arch. Laura Papanti Pellettier, Ing. Enzo Scudellari, Prof. Cinzia Talamo.

<sup>3</sup> S. Curcio (edited by), *Lessico del Facility Management. Gestione integrata e manutenzione degli edifici e dei patrimoni immobiliari*, Terotec - Il Sole 24 Ore, Milano, 2003.

<sup>4</sup> Editor: Arch. Manuele Balducci; Scientific supervision: Prof. Silvano Curcio, Prof. Claudio Molinari.

<sup>5</sup> CenTer Service Responsible: Arch. Manuele Balducci; CenTer data base Coordinator: Arch. J. Stefano Bondesan; Scientific Supervision: Prof. Silvano Curcio.