

Comparing Facility Management practices in the European healthcare industry

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Abstract: This paper aims to outline the distinctive features of the European market of Facility Management services through a comparative analysis of some relevant countries (Spain, Italy, Germany and the United Kingdom). At the macro level, the analyzed countries represent the five largest Facility Management markets in Europe. The UK is the largest and most developed country and it is a true pioneer market, while Germany and Italy are developed markets and Spain represents an emerging one. At the micro level, four cases of public private partnership projects are deeply investigated. The cross-countries comparison outlines that – to fill the gap between emerging and developed countries – there is a need to change companies approach to outsourcing FM services. FM providers should enlarge their offerings to be able to provide a complete services portfolio and both clients and suppliers should move towards collaborative relationships based on trust and long-term contracts. The micro level analysis highlights that, in addition to collaboration, skilled facility managers are the key element determining project success. Facility managers should be given the authority to manage the whole project and the partners, with an adequate technical and management-related knowledge to face the complexity of their role.

Keywords: Facility Management, Healthcare Industry

1. Introduction

The European Facility Management (FM) sector is perceived as a relatively new-born industry and – at the same time – a promising research line (Yiu 2008, Waheed and Fernie 2009), due to its remarkable development despite the slowdown of global economy. Indeed, Europe has been getting some economic benefits from the growing FM market: actually the credit and mortgage crisis stemmed from US in 2008 caused the bankruptcy of banks and of financial companies, together with a remarkable drop in stock exchange values and in population's savings but it neither stopped nor regressed the development of FM business sector.

While European economy shows signs of stagnations, if not of recession, after Covid outbreak (Laczynsk 2020) the FM market has recorded an overall upward trend (Morena 2010), as the British FM market that has soared at a 5% (or more) annual growth rate over the last years. Furthermore, even the least developed countries started some early experiences of out-sourced service management and they are concurring to improve FM market's growth (De Toni 2009). The reason for this trend is grounded in the companies' reaction to the crisis: firms, as in the past, are determined to base their value growth on their own plants but – novelty – they tried to capture the value hidden in all their organizational sub-systems, such as ancillary services.

Sustaining the European FM market's growth can therefore play a leading role in supporting the European economy. Several researches have been carried out to outline the current status of FM market in Europe and in its specific countries (see e.g. Henzelmann and Teichmann 2008, Icona 2010, Morena 2010). However, a study that provides

guidelines for European FM development by comparing and outlining in detail the differences in FM markets, is still missing. Hence, this paper aims to fill the gap in literature.

The paper is structured as follows: section 2 deals with the background, through a literature review. Section 3 describes the methodology used and the analyzed cases, while section 4 outlines the main results. Finally, section 5 reports some guidelines for FM development whereas section 6 presents some concluding remarks and future paths.

2. Background

Over about the last thirty years, several countries have differently developed FM disciplines (Rondeau 1995). Many of them have focused on the rise of mere technological aspects (like building maintenance and redevelopment – see e.g. Magee 1988, Sievert 1998, Lewis 1999, Pozzi et al. 2019), while others have bestowed more importance to ancillary services for users (like catering or security services – see e.g. Teicholz 2001, Piper 2002, Pero et al. 2016). Some countries (like the UK and the Netherlands) have integrated Facility Management in the wider context of Real Estate (Friday and Cotts 1995, Friday 2003), while others have kept separated the two businesses. These gaps are due to the combination of different factors, including politics, culture, economy, law etc. (De Toni 2009) that can speed up or slow down FM development.

Several studies provide information on FM market size in a specific country (e.g. De Toni 2009) but a model for Europe-wide market has not been supplied yet. Jenses (2010) tested, through an empirical analysis in Denmark, a FM taxonomy. However, the parameters introduced by Jensen (2010) differ from one country to another as there

are no univocal criteria for data standardization concerning market structure, data type, time of collection, and focus (Icona 2010).

Henzelmann and Teichmann (2008) showed the European FM market at a glance, and they moved forward in this direction by proposing a model that goes beyond the specific characteristics of each market, and which classifies the evolutionary stages of FM into four hierarchical levels.

First, pre-emerging markets are the ones where the supply of specific services has developed with a rather low level of professionalism. This results in a customer-supplier relationship based on a large amount of short-term agreements for the supply of one service at a time (Bettiga and Ciccullo 2019). In these countries, the overall demand is low and often the role of facility managers has not been acknowledged as a job so far.

Second, in emerging markets the supply is segmented according either to the area of activity, or to the geographic coverage or even according to the type of customers. The branches of multi-national companies have to resort to a limited number of large operators, mainly from abroad and often under pan-European agreements. Market penetration is linked to the competitive performance of their clients and to their corporate strategies. Beside these operators, there is still a thriving market of small-sized providers operating in a semi-captive environment. Ancillary services are still outsourced in a limited way, and only the larger firms implement outsourcing practice.

Third, in developed markets ancillary service provision has been active over almost the last 20 years. Although the integrated provision of services appeared in recent years, portfolios of services are generally mid-sized. This category usually includes some European countries that early started the privatization of state-owned companies. Privatization greatly contributed to create a large captive market, whilst it favored the establishment of new operators. Competitive pressure is generally high and some market segments are saturated, therefore the service-provision basket of operators tends to consolidate. Outsourcing processes are increasing steadily and professionalism has soared both on the supply side and on the demand side. As a result, Service Level Agreements (SLAs) and Key Performance Indicators (KPIs) are widespread (Hiles 2000).

Finally, pioneer markets are the ones where the supply of integrated services thrived over years and where several Public Private Partnership (PPP) projects were launched. The active management performance is a distinctive feature and the value creation stems from the entire lifecycle of buildings.

The main growth factors are due to a coordinated and well-structured resort to the outsourcing practice and to the reduction of assets. The service-provision structure does not remarkably differ from the one of the developed market.

3. Methodology

To identify FM market's pitfalls and opportunities and to provide some guidelines for the future, a two-level analysis

has been performed. First, the FM markets of four major European countries have been compared at a macro level and then, some FM cases have been analyzed at micro level, as outlined hereinafter.

3.1. Macro level

Data from a plethora of sources (published papers, websites, reports etc.) has been gathered to get both an overview and an outlook at the macro-level. Based on this preliminary analysis, four target countries have been identified for further and detailed analysis: Italy, Germany, Spain and the United Kingdom. To identify the countries on which to focus our attention, the FM market structure in Europe has been scrutinized (see figure 1). Specific attention has been paid to the reports by international and local FM associations in different countries, e.g. the British Institute of Facility Management and the German Facility Management Association, as well as to some reports focused on specific countries. Moreover, by means of secondary sources, the offering and the features of the main operators in each market have been studied.

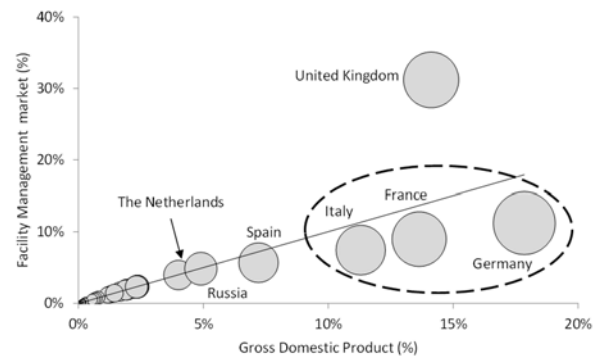


Figure 1: The relationship between FM market and GDP

The five largest FM markets in Europe are the UK, Germany, France, Italy and Spain. The UK is the largest and most developed country – it is a true pioneer market – while Germany and Italy are developed markets and Spain represents an emerging one.

Then, the dynamics in the analyzed market has been investigated in the light of the Porter's five competitive forces model (Porter 1985). According to Brun and Pero (2010) the number of competitors can measure the competition within a given industry and – similarly – the diversity of their product offering and exit costs. The risk of customers loss depends on the strength of the customer-supplier relationship (Eriksson 2007, Brun and Pero 2011): the higher the dependence of the client to the supplier, the lower the risk the client would change supplier.

Table 1 summarizes (at the end of the paper) the main features of the analyzed markets in terms of market size, demand and supply features. In particular, Top 20 indicates the market's share managed by the 20 largest FM service operators in the country.

The Spanish market is the least developed one: top 20 operators just 13% of the potential market. Small and medium size enterprises are lacking FM culture, and they usually do not have a Facility Manager or even a Facility

Department. There is a low level of integrated outsourcing in the public sector, while large companies have reached a good level of outsourcing: health-care and education are high potential markets, but not much exploited yet. PPP projects could increase, provided that in the selection process of providers less importance was given to price.

On the supply side, few providers are able to offer an integrated service while an even lower number of service providers can operate as truly integrated facility managers. However, integrated companies are expected to grow since most of them (about 50%) were established at the end of the Nineties. Top 20 operators are divided into several segments: top three providers are Spanish firms already well rooted in the domestic domain, while 10 other companies are foreign providers (and seven of them are French). It indicates that the Spanish market offers significant opportunities for growth, which have been already exploited by large multinational firms due to their expertise in the field and sound financial statement.

Italy has the smallest potential FM market in terms of total size within the European countries studied. However, the serviced market size is about 60%, with adequate profitability, which takes Italy into the developed FM markets. The private sector shows different characteristics, depending on company size. SMEs do not usually have a Facility Manager inside their organization. This is due to, on the one hand, the limited availability of resources and, on the other hand, the purchasing department or the technical area is traditionally responsible for FM-related activities. The opposite occurs in large firms, where Facility Managers have enlarged their span of control over the selection of suppliers and the service level settings.

The Italian market is highly fragmented: top 20 providers manage just 18% of the market. This is due to the hurdle for SMEs to identify a need for integrated FM approaches, thus focusing only on cost instead of on the quality and the global benefits achievable. In the public sector, despite its potential, the labor laws still safeguard in-house employees, thus hampering the development of Integrated Facility Management agreements. However, recently public administrators have realized the benefits of the full outsourcing of both operational activities and ancillary services, in terms of cost cutting and focus on core business. Apparently, it seems that the development of the Italian FM market will be shaped by two main factors. The former one seems to be related to the business sector where demand originates from. Innovative and eco-efficient systems are integrated into new buildings, thus originating the need for an integrated design, building and managements of FM systems in the construction industry (Patrucco et al. 2020). The latter one is connected to the size of FM providers: operators from multinational companies have an edge due to their wider experience and practice of the integrated management of ancillary services.

The German FM market is the largest one and almost as fragmented as the Italian one. Top 20 operators manage about 30% of the whole market. The presence and the characteristics of the FM department depend on company size, country of origin and culture. Most of the German SMEs have not included the FM role inside their

organizational chart yet. Large companies have usually a centralized Facility Department, with a focus on the technical and operational issues. This results in limited resort to result-oriented systems, and emphasis on cost-related aspects of the service provided by comparison to customer satisfaction.

When compared to other European countries, FM market in the UK presents some distinctive characteristics. The top 20 domestic operators manage almost 90% of all FM services and the market size keeps growing, thus leaving room for new entries. Companies in the UK have usually a Facility Manager, who is in charge of managing FM related services and outsourcing processes. Special attention is paid to sustainability issues (Rossi et al. 2020). In the end, the FM market in the UK has achieved full maturity. The elements that concurred in this result are: the long-term partnership relations between clients and providers, where clients are also public authorities, and a consistent demand of integrated services where the most important factor for the choice is quality, and not only the cost of the service.

3.2 Micro level

Multiple case studies methodology (Yin 1984) has been selected to investigate FM practices. Four cases of PPP projects (see table 2 at the end) aimed at managing healthcare facilities in Italy and in the UK, that is a developed and a pioneer country. The unit of analysis is a case of PPP. The choice of a heterogeneous sample is due to the purpose of exploring different practices in terms of FM management.

Direct semi-structured interviews have been performed with the architects responsible for the building yard and/or facility managers or directors of the public institution. Secondary sources, such as company data, reports and news, were also analyzed, as various perspectives of different actors and the use of different sources of information support construct validity.

A case study protocol has been defined and shared with all the participants to the research. Information gathered refers to three major areas. First, partnership characteristics as content of the agreement, investment, public and private share in the project, responsibility of design etc. Second, partnership history in terms of phases, role of each actor, troubleshooting etc. Third, partnership outcomes measured by time, cost, final customer satisfaction and satisfaction of public and private partners (see also Okoroh et al. 2002).

3.3. Case-studies

Case 1 refers to a PPP project aimed at building a new hospital and at outsourcing FM-related services. Both private and public partners were satisfied with the results: the hospital building has been completed within the agreed time frame at the appropriate cost, and with the cost of FM services lower than the one of similar buildings managed by the public institution. Collaboration between public and private, in terms of tight coordination and involvement of all partners in the project, is perceived as the main item that allowed to reach these goals. In this field, the case of Milan Expo 2015 is of paramount importance. However, the need

to find and manage – within a consortium – different competences and skills was perceived as a problem: trouble arose when the public institution asked for a reduction in the number of sub-contractors, to gain effectiveness in project control.

The PPP employed in Case 2 allowed to complete the hospital in a short time and to benefit from economies of scale in purchasing. Gains were obtained by integrating human resource management for all the non-core services, such as logistics, catering, laundry and waste management. An Information System supporting the integrated management and monitoring of all the services was introduced. It is now a standard tool used by all the hospitals in the area. Low trust between public and private partners – shown for example in a non-collaborative or proactive approach when facing problems – resulted in delays in the completion of some project activities and represents an issue that hinders FM efficiency and effectiveness in the day-by-day activities. Other problems on the private side were connected to the lack of one company able to provide all the requested services, thus the need to build consortia that increased managerial complexity, and – on the public side – the lack of a facility manager, i.e. a multi-skilled professional able to manage the different competencies of the private partners.

In case 3, the building of the hospital was completed within the agreed time fence. The global service contract between the private company and the public institution allowed the public body to reduce expenditure for non-core services. Problems were encountered in the management of many services. Some of the public needs and constraints, such as the quality level of the sterilizing process or procedures for waste management, were not taken into account in the service design phase. Maintenance plans were not respected. Countermeasures consisted in monthly meetings to check service provider performance and penalties. The interviewees outlined that one of the main hurdle to the achievement of good performance in the global service management was the lack of collaboration, resulting in difficult communication between the private company and the public body when contrasting objectives were at stake.

In Case 4, a new Hospital in London was built and a contract for the management of the FM services – including catering, laundry, cleaning, helpdesk, security, estate management, waste management and logistics – was signed. All the buildings were completed within the agreed time-frame and within budgeted cost. Moreover, this project won the Best Health Project prize for the benefit it provided to patients, employees and local community. The project was steered, on the public body side, by a project manager in charge of coordinating all the private companies. At the beginning of the project, a detailed business plan, containing the best option in terms of time and cost was defined and shared among partners. Tight procedures were defined by the public authority and followed by all partners. Organizational resistances to change were managed by defining an Agenda for Change, containing a plan for training of both private and public

employees on the new organization, thus building a common culture.

4. Results

4.1 Cross-countries comparison at the macro-level

As stated in section 3 (devoted to the methodology), a cross-country comparison based on five factors has been performed and the evolution of each country has been outlined.

In general, competition decreases with market maturity, thus shifting the attention from emerging to pioneer market: large companies acquire the small ones to offer a wider range of services. In Spain, the number of competing companies has increased, due to the opportunities for high margins. In Italy, the market has increased in size with M&As and joint ventures limiting the development. Despite a similar competitive arena, in Germany the presence of many local suppliers has kept down the process of market concentration. Finally, UK shows a high level of concentration obtained by means of M&As and joint ventures that have led the top 20 companies to manage the market.

The level of bargaining power on the customer side has increased in all the analyzed countries. This is due to different reasons depending on the country. In Spain, the growth of FM services on the supply side has increased the importance of customers, whereas in Italy and UK this is due to a higher market awareness by clients. In Germany, multiple sourcing of FM services is a widespread practice.

The bargaining power of suppliers is growing only in pioneer markets. This is linked to a wider use of integrated service contracts in pioneer markets than in the other ones. In fact, in Spain, Italy and Germany the tendency of clients to rely on specialized suppliers while avoiding global service contracts has limited the growth of the power on the supply side. In the UK, the demand for integrated service, over the years, has led to the creation of supply chains and trust-based client-supplier relationships between FM service providers and subcontractors.

The entrance of new competitors seems to occur only in emerging markets. In fact, in Spain, new competitors from foreign countries have entered the market. The same did not occurred in any of the other three countries, where the need to widen product offering led many companies to merge or buy other companies.

Long-term contracts with clients are mostly used in mature markets, to reduce the risk on the client side. In Italy and Spain – the emerging and developed markets – the majority of buyer-supplier relations are ruled by short-term contracts, with an increasingly high risk on the client side. In Germany, there is a tendency to resort to long-term contracts, whereas in the UK, partnership – mainly in the public sector – is a widespread practice.

By comparing Germany to Italy, you should notice that both industries of FM services are similar. This is consistent with the classification by Henzelmann and Teichmann (2008), which places both countries in the area of developed markets. The main reason for the differences

seems to be due to cultural and country-specific factors. Future research might investigate these differences to develop a descriptive model of FM markets able to improve the model by Henzelmann and Teichmann (2008), thus providing a more structured description of FM markets.

In the end, the cross-country comparison outlines that – to fill the gap between emerging and developed countries – there is a need to change companies approach to outsourcing FM services. On the one hand, FM providers should enlarge their offerings to be able to provide a complete services portfolio. On the other hand, both clients and suppliers should move towards collaborative relationships based on trust and long-term contracts. Indeed, in facilities construction the best way to facilitate cooperation between client and FM providers lies in long-term contracts (Eriksson 2007).

Hence, the UK market, in its pioneering stage shows a higher demand for Total Facility Management approaches and long-term contracts with multi-service providers. Beside the availability of resources, at least in the four analysed countries, the main hurdles to overcome in order to achieve excellence are behavioral and cultural. These hurdles significantly affect small and medium-sized enterprises and – according to Cigolini et al. (2011) – it might represent one of the major reasons for the limited adoption of FM outsourcing by Italian SMEs.

Finally, the UK, with respect to the other analyzed countries, presents innovative elements such as the widespread presence of energy managers in the companies and a specific focus on sustainability.

4.2 Micro-level analysis: case studies comparison

Comparing the four case studies considered at the micro level sheds interesting insights on the main challenges to FM service growth and success in Italy with respect to UK, a developed and a pioneer country respectively, according to Henzelmann and Teichmann (2008). All the cases outline that facility managers are the key people in determining FM outsourcing success. In particular, facility managers should be the sole reference point in charge of managing projects and service providers and they should have appropriate technical and management-related skills.

Furthermore, project management skills seem to be determinant in avoiding delays, re-work, and/or missing deadlines and constraints. Case 1, 2, and 3 show the bad effect on project performance of the lack of competences in project management. Moreover, in case 4, the prior evaluation of the project feasibility from a technical and a financial point of view, led to outstanding project outcomes, and to the opportunity to share a common long-term plan with all involved partners and stakeholders. Finally, the use of a change management tool (the Agenda For Change) in case 4 resulted very important in supporting a smoother introduction of private partners into operations. On the other hand, the absence of change management tools resulted in all the other cases in resistance to change.

In addition, clear, open and – when applicable – IT based management tools should be adopted. In case 2, the IT

system supports effective and efficient human resource management. In case 4, a business plan was shared with the project partners.

Finally, collaboration between companies and public authorities emerges as a key of project success and of FM related services outsourcing in a PPP context. In case 2 and 3 the lack of collaboration hindered project success.

4.3 Blueprints for FM growth

Based on both the macro and micro level analyses, some guidelines for sustaining FM growth in European market can be outlined. Given the pivotal role that facility managers play in the success of a FM strategy and of FM market growth, FM related skills are to be carefully considered. Technical skills – related to the specific job content – and management skills, such as developing and coaching, communicating, resolving conflicts, making sound decisions are to be kept separate.

Facility managers should have both an economic and a engineering-related background, to be able to evaluate projects feasibility both from the economic and the technical viewpoint. For instance, they should be able to properly assess the Return on Investment under different scenarios (e.g. repair work or replacement), and to perform a detailed analysis of the structural, architectural and technological state of buildings (involving exterior envelope, foundations, roofing, partition walls, flooring, systems and installations). Furthermore, they are expected to identify hazardous materials or substances and plan the adequate management (disposal or storage under safe conditions). Then, facility managers are often involved in decisions concerning repair works, re-use or replacement of systems, installations, structures, and machinery of buildings. Therefore, they should have the skills to identify the right time to invest and to manage portfolios of buildings.

The critical success factor for a FM practice is the ability to link the role played by facilities to the core business strategies. Facilities can play a relevant role in terms of productivity, innovation, efficiency, employer satisfaction, and business welfare. These goals can be achieved only if FM professionals are able (i) to act as mediators between the client and FM service providers, (ii) to think strategically by developing a long-term vision and (iii) to lead the organization to the awareness that facilities are an effective component of their business, rather than a mere cost item.

Finally, regardless of business sector, any organization has to face change, uncertainty and environmental turbulence. Facility managers have not only to be continuously updated on regulations, laws, and rules enacted in every country they operate in, but they should also have the ability to anticipate change, by developing and by putting in practice timely and effective response programs.

5. Conclusions

This paper presents some guidelines for developing the European FM market. The guidelines are grounded on a two-level analysis: a macro level analyses focused on the main trends experienced by four European FM markets,

(Spain, Germany, Italy and the UK) and a micro level analysis aimed at investigating four cases of PPP in Italy and in the UK.

A common guideline can be drawn from both analyses: collaboration between clients – regardless whether they are private or public bodies – and FM services suppliers should be increased and a new model of client-supplier relationship should emerge in the market.

The macro level analysis shows that FM markets can still grow in all the analyzed countries. Suggestions on how to develop the market rely on common trends. However, the differences in countries at the same level of development points out that additional research is needed, mainly to develop country-specific models.

The micro level analysis highlights that, in addition to collaboration, skilled facility managers are the key element determining PPP projects success. Facility managers should be given the authority to manage the whole project and the partners, with an adequate technical and management-related knowledge to face the complexity of their role.

In the future, facility managers will be required to respond to challenges like sustainability and globalization. As far as sustainability is concerned, conservation is the most powerful tool to manage limited resources (unlike the development of new technologies). Hi-energy performance buildings will guarantee an appropriate growth of performance on the workplace. However, the markets are likely to suffer from a widespread lack of education on technological change and from the difficult measurement of the benefits offered by sustainability. Therefore, the skills that FM professionals need are related to the ability to produce a business case for sustainability and to develop programs for the reduction, conservation and reuse of energy resources. As far as globalization is concerned, facility managers should be able to overcome geographical barriers, cultural differences and to constantly change regulatory frameworks.

This study allows setting the basis for future researches in the realm of FM markets. For example, the agri-food industry is facing different challenges connected to sustainable development (Glover et al. 2014). These challenges triggered initiatives ranging from food waste reduction and management programs, to new solutions to contain the environmental issues related to the use of natural resources and different forms of pollution generated in the core processes (Godfray et al. 2010). In such industry, some authors (e.g. Zouaghi and Sanchez 2016) identified in radical innovations oriented to sustainability not only a risk mitigation, but also a growth strategy. Among the different types of agri-food products, the dairy supply chain is considered to be particularly energy intensive, with products that are highly perishable and need constant refrigeration, with daily shipments (Glover et al. 2014). For these reasons, the environmental impact of transportation is remarkably critical and it sets relevant challenges for facility managers.

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	Country			
	United Kingdom	Germany	Italy	Spain
Potential market	62 Billion €	69 Billion €	42.8 Billion €	44.1 Billion €
Serviced market	27.5 Billion €	46.7 Billion €	26.4 Billion €	11 Billion €
Top 20 providers	24.5 Billion €	13.8 Billion €	4.8 Billion €	6 Billion €
Characteristics of the demand side	<ol style="list-style-type: none"> 1. FM is widespread 2. Providers as partners 3. Total Facility Management 	<ol style="list-style-type: none"> 1. Focus on efficiency 2. Underexploited partnership with providers 3. Wide use of KPIs and SLAs 	<ol style="list-style-type: none"> 1. FM almost non-existing in SMEs 2. growing outsourcing practice in medium and large-size companies 	<ol style="list-style-type: none"> 1. no FM in SMEs 2. highly integrated large companies 3. low-level integrated outsourcing in the public sector
Characteristics of the supply side	<ol style="list-style-type: none"> 1. Market highly concentrated 2. Few multi-service providers 3. Many Integrated Facility Management (IFM) companies 	<ol style="list-style-type: none"> 1. Many multi-service domestic firms 2. Few large multinational IFM companies 	<ol style="list-style-type: none"> 1. Many multi-service providers 2. Focus on maintenance and operations 3. Limited (but growing) resort to IFM 	<ol style="list-style-type: none"> 1. Many single-service providers 2. Few large multinational IFM groups

Table 1: Characteristics of FM market in Germany, Italy and Spain as compared to the UK.

Case ID	Country	Content of the agreement	Overall investment (% public)	Design responsibility
1	Italy	Operative design and building of hospital, management and supply of instrumental services and maintenance of the systems	52.8 Mln € (60%)	Public
2	Italy	Operative design and completion of the hospital building and the service center, management of no-core services	24 Mln € (0%)	Public
3	Italy	Completion of the hospital building and global service of the services for the hospital (e.g. maintenance, cleaning, canteen, waste and laundry)	28 Mln € (40%)	Private
4	UK	Building and management of non-core services	422 Mln £ (0%)	Public

Table 2: Overview of analyzed cases