Professional MBA
Facility Management

# THE FACILITY MANAGEMENT MARKET AND ITS TRENDS IN BULGARIA

Master Thesis zur Erlangung des akademischen Grades
„Master of Business Administration"

eingereicht bei
ao.Univ.Prof.Dr.techn. Alexander Redlein

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Sofia, 19. September 2017

# Affidavit

I, **DIANA TODOROVA**, hereby declare

1. that I am the sole author of the present Master's Thesis, "THE FACILITX MANAGEMENT MARKET AND ITS TRENDS IN BULGARIA", 66 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and
2. that I have not prior to this date submitted this Master's Thesis as an examination paper in any form in Austria or abroad.

Vienna, 19.09.2017

Signature

## About this survey

The main goal of this survey is to analyse the current Facility Management (FM) market trends in Bulgaria, to evaluate the importance of FM Departments in the Companies' structure and their significance in optimising the facilities' costs and thus adding value to the core business.

"Organizations need to continually assess what is the optimal mix of outsourcing, shared services, and internal operations to support their FM services' needs. This requires a careful evaluation of the performance of their current operations, business needs, challenges and capabilities available in the market, and the benefits and risks in addition to the costs of making a change. There is no right answer or single best-fit model, but maintaining the status quo legacy model is no longer prudent. Leading organizations have evaluated their current real estate and facilities management (REFM) practices, benchmarked them, and identified ways to reduce costs and improve their service delivery quality. They have leveraged the capabilities of the marketplace and have created a road map to achieve their desired end state." (KPMG 2015 Global Real Estate and Facilities Management Outsourcing Pulse Survey)

The present research has been carried out with the support of Vienna University of Technology. Since 2005 the Vienna University of Technology has been analysing the demand side of FM on an annual basis in different European countries such as Austria, Bulgaria, Germany, Italy, Romania and Spain. The survey provides data about which specific areas are responsible for costs, why they cause costs, and why different cost drivers require differentiated cost control. The goal is to determine the value added of FM departments and the parameters influencing its magnitude.

The scope of the data collection for this research are 25 randomly selected Bulgarian companies among the Top 500 (ranked by their revenues). The research is based on a mixed method approach that focuses on finding out the correlation between different variables. The main question is whether companies with a FM department are more effective in optimising their FM services costs and increase in productivity than those without a FM department and is outsourcing believed to be a cost-reducing technique.

## Acknowledgments

I want to express my gratitude to all of the people who supported me and made this research possible: This survey came to its completion only thanks to the engagement and trust in our confidentiality by all the Managers who although their busy daily schedules dedicated from their precious time to answer all of the 40 questions, thus contributing gathering valuable information over possible fields where the FM costs could be reduced, and highlighting possibilities that could turn current setbacks into profitable solutions.

I'd also like to thank ao.Univ.Prof.Dipl.-Ing.Mag.rer.soc.oec.Dr.techn. Alexander Redlein who has been my supervisor and has given me this opportunity to work on this project.

Endless thanks also to my Co-supervisor: Mag. Eva Stopajnik and Mr. Dipl.-Ing. Dr. Man-Wook Han, MSc. (OU) who have supported me upon this research completion.

Last but not least thanks to all my friends for their enthusiasm and encouragement. Their support throughout this project was extraordinary.

Diana Todorova

September 2017

Sofia, Bulgaria

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## 1. Introduction

"Facility Management is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology" (Roper & Payant, 2014, pp. location 195 of 11947 : e-book )

According to the European standard EN 15221 – 1, cited by Ana Sanchez Le Monnier (06/2016) in her Master Thesis "Facility Management Market in Spain and analysis of the time series", TU Wien (Monnier, 06/2016), the definition of FM is:

"In general all organizations, whether public or private, use buildings, assets and services to support their primary activities. By coordinating these assets and services, by using management skills and by handling many changes in the organization's environment, Facility Management influences the organization's ability to act proactively and provides all necessary requirements. This is also done to optimize costs and the performance of assets and services. " (EN 15221-1, Facility Management - Part 1: Terms and Definitions, cited by Ana Sanchez Le Monnier, 06/2016 in her Master Thesis "Facility Management Market in Spain and analysis of the time series", TU Wien)

The development of the Facility Management has started with the management of large facilities in the US military. The Association of Facilities Engineering (AFE) and the Association of Higher Education Facilities Officers were among the first to organize different professionals with diverse backgrounds into professional associations. Early in the 1980s the Facility Management Institute formed the separate National Facility Management Association (NFMA). Canadian interest, however, soon led to the conversion of NFMA to the International Facility Management Association (IFMA). (Kathy O. Roper and Richard P. Payant, 2014, location 240 of 11947, e-book)

## 2. FM Status Quo in Bulgaria and compared to other European countries

The Facility Management in Bulgaria has marked its starting steps in the beginning of year 2000. The first FM established companies were those who have made substantial investments in Real Estate Properties' acquisitions and therefore were focused on the relevant Real Estate Properties' assets value optimization and costs reduction.

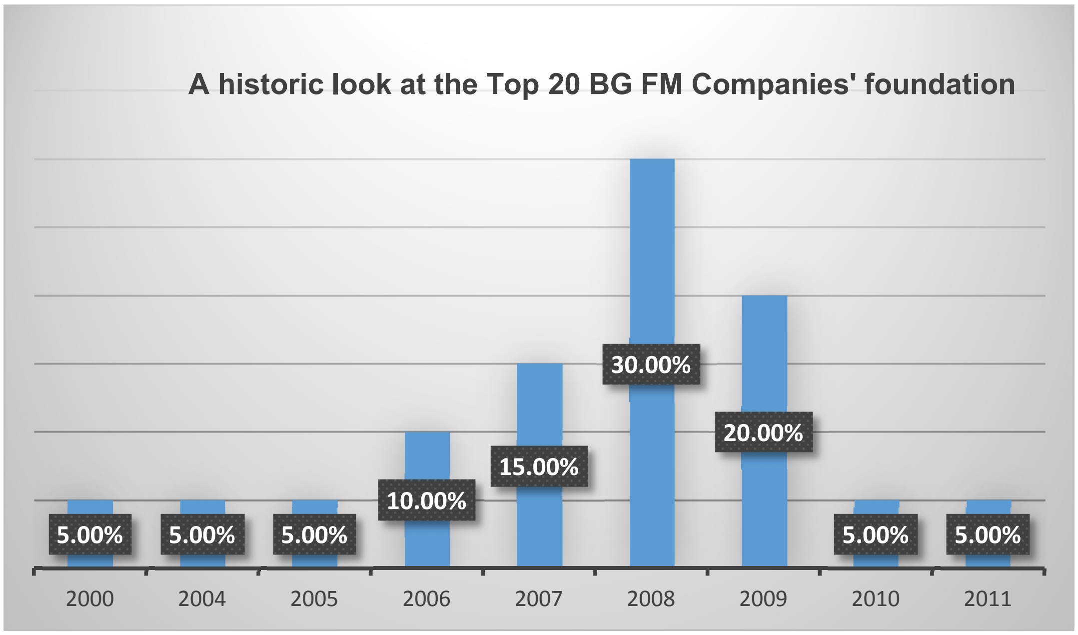


*Figure 1 - A historic look at the Top 20 BG FM Companies' foundation (source: Bulgarian Trade Register, cited by (www.apis.bg, September 08, 2017)*

The peak of the Facility Management Companies' foundation in Bulgaria was in year 2008: right after Bulgaria has joined the European Union in Year 2007, and the year in which the global economic crisis had worsened. The housing collapse in the United States had affected the Bulgarian Market as well and many construction companies had to update their main activities through adding Facilities Management services into their business operations. That was an activity's transformation that gave the construction companies an opportunity to survive and that was the reason why in year 2008 so many Bulgarians companies were registered as Facilities Management Services Providers. The foundation of the Bulgarian Facility Management Association was also in 05/2008.

As per the classification of the European FM Markets according to Aberto F. de Toni, Alberto Ferri and Mattia Montagner in "Open facility management, a successful implementation in a public administration" (Aberto F. de Toni, 2009, pp. 29-32) the FM market in Bulgaria has been classified as part of the emerging markets.

| Evolution Stages | European FM Markets |
|---|---|
| Advanced Markets | Denmark, Netherlands, United Kingdom |
| Developed Markets | Austria, Belgium, Luxemburg, France, Germany, Ireland, Italy |
| Emerging Markets | Portugal, Poland, Hungary, Czech Republic, Slovenia, Sweden, Finland, Bulgaria, Spain |
| Pre-emerging markets | Greece, Slovakia, Romania, Estonia, Latvia, Lithuania, Cyprus, Malta |

*Table 1 - Classification of the European FM markets (Aberto F. de Toni, 2009, p. 30)*

The evolution stages are characterized with the following typical traits:

- **Pre-emerging markets,** at the end of the 90's appears single services supply, presenting poor professionalism not only in the demand-side but also supply-side of the market.
- **Emerging markets,** where single services supply appears during the second half of the 80's and multi-services supply starts operating during the second half of the 90's. Large-sized enterprises entrust their facility services to a small number of big FM operators, mainly foreign companies. Moreover, a high number of small and medium-sized suppliers prosper in the FM-Market, characterized by a low level of competition. Except for large-sized enterprises, outsourcing of facility services is not a widespread practice.
- **Developed markets,** where facility services supply operates since at least 20 years. Single services supply co-exists besides multi-services supply in the beginning of 90's. The FM market that in the 90's started the privatization process of the state – owned companies place in this evolution stage. Outsourcing is continuously increasing and also the professionalism is growing.
- **Advanced markets,** where the integrated services supply starts operating in the second half of the 90's and in the late decade the first Public Private Partnerships projects are implemented. (Aberto F. de Toni, 2009, pp. 30-32)

## THE FACILITY MANAGEMENT MARKET AND ITS TRENDS IN BULGARIA

The Bulgarian FM Market is an emerging market, where mostly single services providers operate, but following and implementing the international trends of Companies that offer full services' portfolios thanks to mergers & acquisitions.

A proof that the Bulgarian FM Market is an international trends' Follower is the new FM Company "Mundus Services" SA (05/2017) that holds more than 35 % market share and has become an Integrated Services Provider (ISP) after the acquisition of three of the largest Single Services FM Providers ( "Facility Optimum BG" AD, "Viki Comfort 2004" LTD and "ASS BG" LTD) and will offer services of all areas of FM activities thus positioning itself as the biggest FM Integrated Service Provider (ISP) at the Bulgarian Market.

The Bulgarian Market is mainly dominated by domestic Companies, with few exceptions such as ISS (Denmark), Bilfinger (Germany) and few Austrian Companies (see Table 2 below).

| Ranking | Sum of 2013 Revenues | Sum of 2014 Revenues | Sum of 2015 Revenues | Sum of Staff 2015 | Sum of Staff 2016 | Sum of Staff 2017/05 |
|---|---|---|---|---|---|---|
| VNP Facility EOOD | € 5 574 490 | € 5 031 122 | € 5 695 408 | 582 | 511 | 505 |
| Facility Optimum BG/Mundus | € 4 942 347 | € 5 145 408 | € 5 028 571 | 830 | 400 | 310 |
| Viki Comfort 2004 EOOD / Mundus | € 3 972 449 | € 4 444 388 | € 4 962 245 | 1319 | 414 | 391 |
| A.S.S. Bulgaria OOD / Mundus | € 2 643 379 | € 2 774 490 | € 3 302 551 | 5 | 7 | 7 |
| Pi El H Invest | € 3 342 315 | € 6 855 402 | € 3 256 929 | 160 | 180 | 192 |
| ISS Facility Services EOOD | € 1 788 265 | € 2 300 000 | € 2 500 510 | 42 | 77 | 101 |
| OKIN Bulgaria EOOD | € 1 337 245 | € 1 645 918 | € 2 075 510 | 111 | 160 | 189 |
| Bilfinger HSG Facility Management EOOD | € 977 041 | € 1 171 939 | € 1 518 878 | 38 | 41 | 42 |
| Landmark Property Management AD | € 2 482 143 | € 2 132 653 | € 1 399 490 | 51 | 35 | 32 |
| First Facility Bulgaria EOOD Austria | € 639 286 | € 910 204 | € 1 207 653 | 26 | 36 | 43 |
| Tishman Management Company | € 885 714 | € 794 388 | € 1 035 204 | 14 | 2 | 2 |
| Kalamaris Group LTD | € 237 245 | € 855 612 | € 958 163 | 132 | 197 | 193 |
| FM Europe OOD | € 820 918 | € 890 306 | € 951 020 | 29 | 32 | 38 |
| Home Care BG Bansko | € 697 449 | € 814 286 | € 859 184 | 64 | 62 | 72 |
| GI Enterprise Varna | € 453 571 | € 654 082 | € 815 306 | 22 | 22 | 24 |
| Geo Facilities EOOD | € 694 388 | € 909 694 | € 671 429 | 34 | 41 | 44 |
| Simacek Facility Services BG Austria | € 506 122 | € 596 939 | € 607 653 | 103 | 163 | 172 |
| Facility Management Group EOOD | € 2 382 143 | € 1 741 327 | € 352 551 | 33 | 32 | 32 |
| Ceres Property Services EOOD | € 416 327 | € 339 796 | € 305 102 | 11 | 22 | 24 |
| Vista Management EOOD | € 283 163 | € 287 245 | € 277 551 | 17 | 16 | 25 |
| **Grand Total** | **€ 35 076 000** | **€ 40 295 197** | **€ 37 780 909** | **3623** | **2450** | **2438** |

*Table 2 - Top 20 FM Companies at the BG Market (Source: BG Trade Register, (www.apis.bg, September 08, 2017))*

As seen from the below data, shown in Figure 2, 3 and Figure 4, the Top 20 BG FM Companies' Revenues compared within three consecutive years: 2013, 2014 and 2015 (the Revenues' data for years 2017 and 2016 was not published as of the date of this survey's completion, i.e. September 8th 2017) are relatively steady: an increase of 15 % in the 2014 Revenues versus ( vs ) Year 2013, an increase of 8 % in the 2015 Revenues vs 2013, and a slight decline of 6% in the 2015 Revenues vs 2014 Revenues.

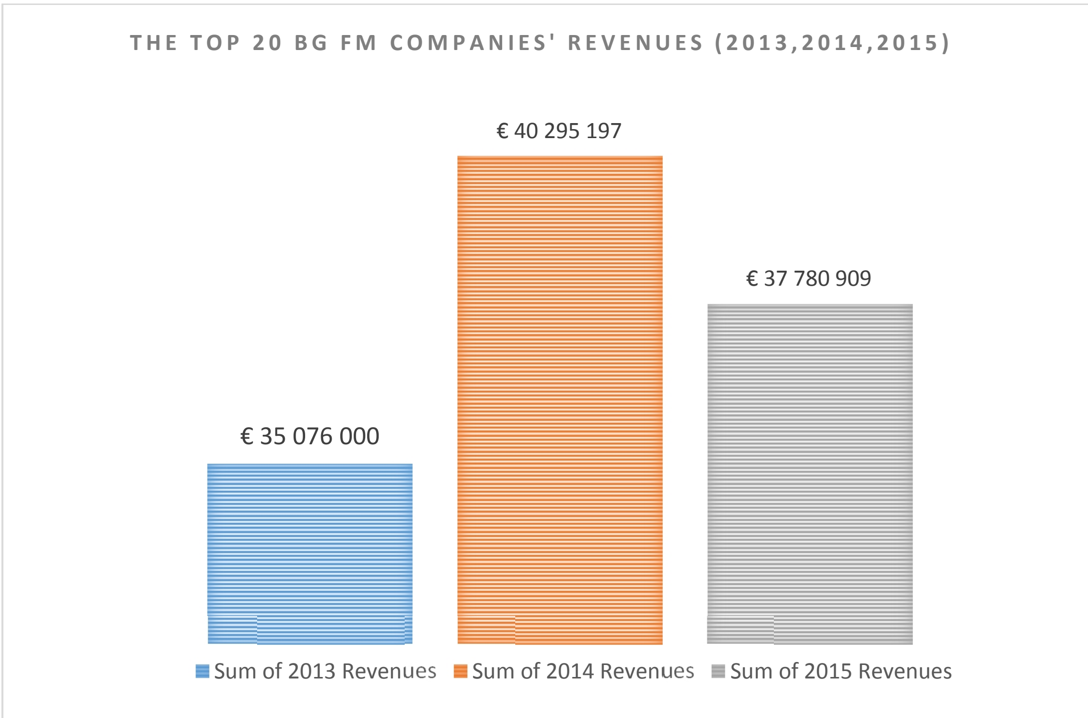


*Figure 2 - The Top 20 BG FM Companies' Revenues (within three consecutive years with available data for Years: 2015, 2014 and 2013); Source: BG Trade Register, (www.apis.bg, September 08, 2017))*

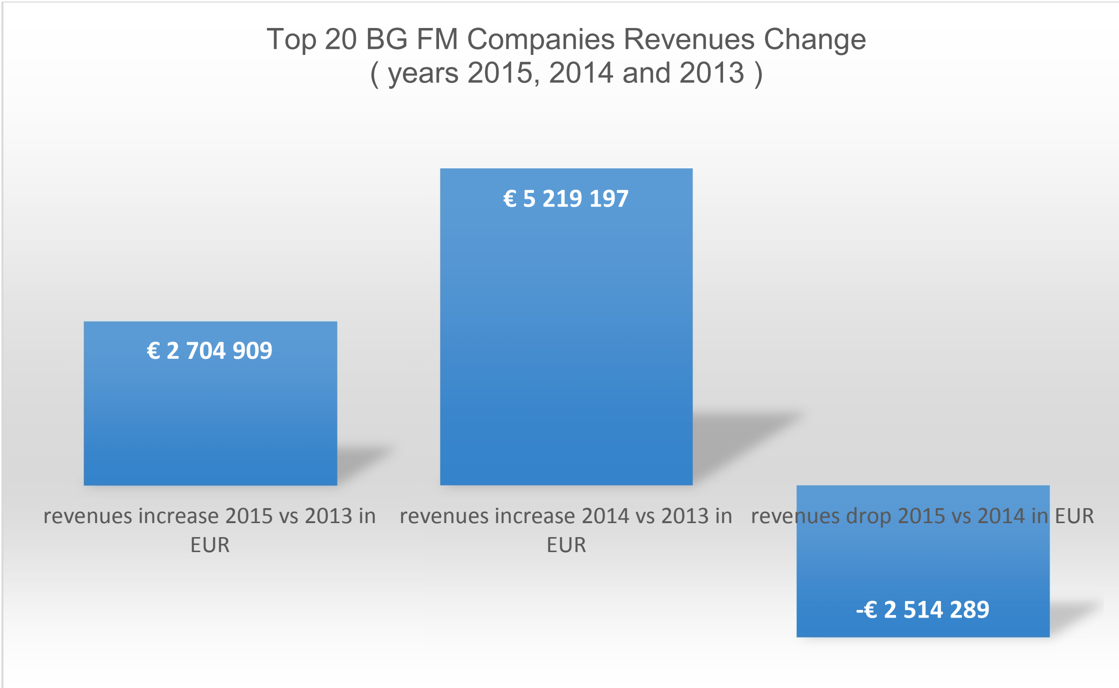


*Figure 3 - Top 20 BG FM Companies' revenues change in EUR within three consecutive years ( available data for year 2015, 2014 and 2013) (www.apis.bg, September 08, 2017)*

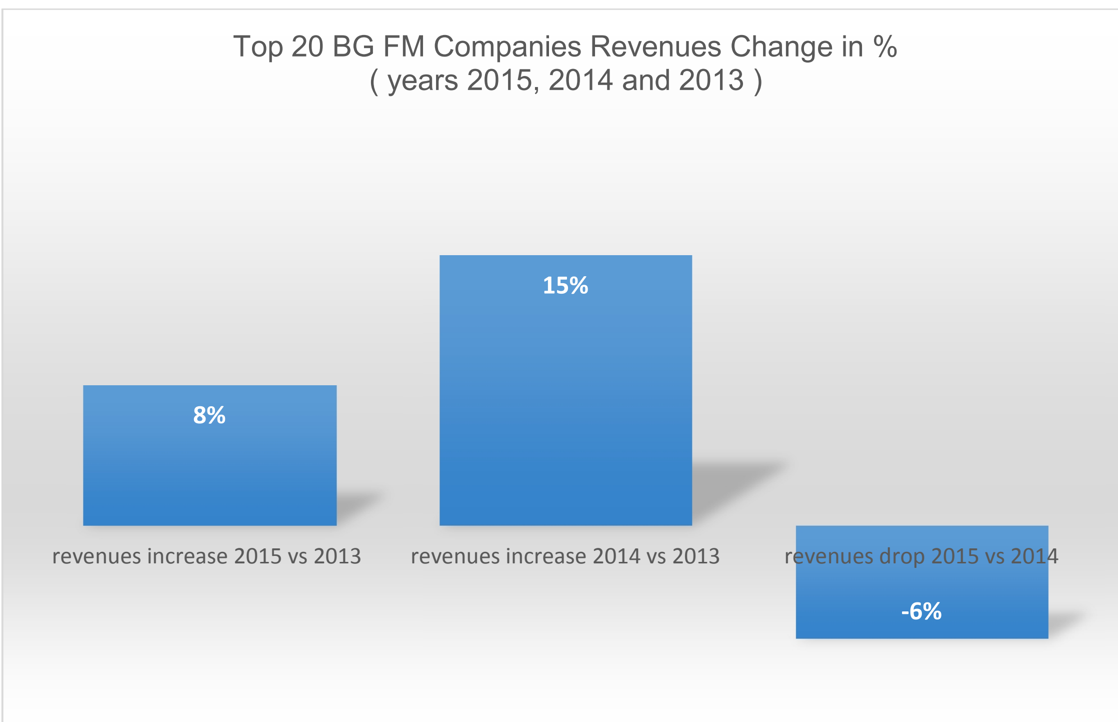


*Figure 4 - Top 20 BG FM Companies' revenues change in % within three consecutive years ( available data for year 2015, 2014 and 2013) (www.apis.bg, September 08, 2017)*

## 3. Survey's methodology

While the previous surveys were done mostly by email and phone this survey was completed almost 90% on-line: 22 surveys were gathered on-line and 3 surveys were filled in word & pdf format and received by email.

A total of 100 companies / out of the Top 500 Bulgarian Companies (ranked by their revenues) were sent an email, with an attached survey-link. The respondents were given the choice to answer the 40 questions on-line (either using their PCs, mobile phones or I pads), or by filling out the word or pdf versions of the survey. The participants were also given the choice to answer in Bulgarian or English language, as many of the Companies' Managers are foreigners. The survey data was collected in July 2017 and the final response rate was 25 % percent. The average time the respondents needed to answer the questions was said to be between 30 - 60 minutes.

As pointed out in the Master Thesis of Mrs. Sanchez Ana, (Monnier, 06/2016) there are three major research paradigms for collecting the required data: quantitative research method, qualitative research methods and mixed method research. Quantitative and qualitative methods both have particular strengths and weaknesses. For this reason the survey is based on the mixed method research. In the mixed method research quantitative questionnaires with qualitative data collection are combined e.g. individual interviews, focus groups, observations and action research. That is to say, in one phase of the study qualitative research paradigm is used and for the other phase of the study a quantitative research paradigm is used. Therefore, performing this combination allows the researcher answering specific questions in a more proper way. It also allows the analyst to have a feedback with the interviewers and it may help to rephrase some questions or add more questions to make the survey even more efficient. In the case when mixed model research is applied the survey contains rating scales (quantitative data collection) and open-ended questions (qualitative data collection). (Redlein & Zobl, 2014, pp. n/a, secondary citation) (Saunders, Lewis, & Thornhill, 2009, pp. n/a, secondary citation)

## 4. Survey findings Bulgaria 2017 and their comparison with data (when available and applicable) from previous surveys for Austria, Germany, Romania and Spain)

### 4.1. Basic data of the surveyed companies

The respondents in this survey are companies that manage altogether more than 770.000 m2 real estate properties. According to their industry, size, usage and ownership of the properties they are grouped as following:

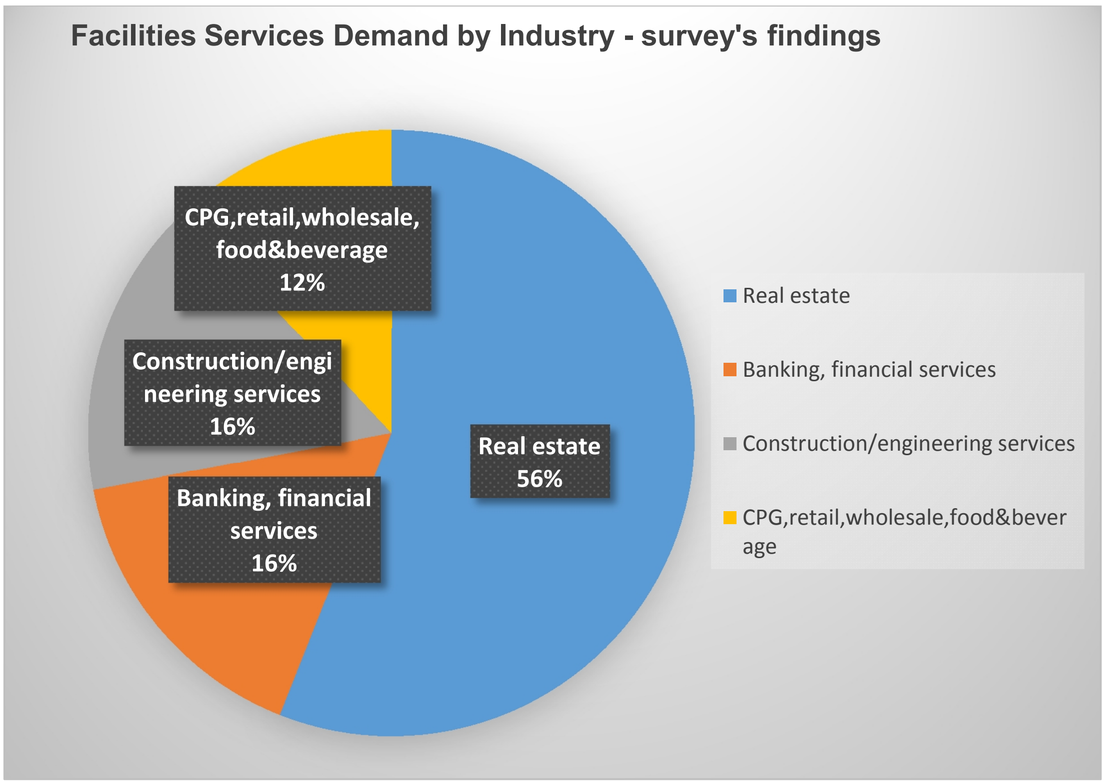


*Figure 5 - Facilities services demand by industry - Survey's findings Bulgaria 2017*

- 56 % of the surveyed companies stated that their core business is in the Real Estate Field and those companies Real Estate Portfolios are consisting of Shopping Malls, Business Centers and mixed usage buildings, owned and leased.
- 16 % of the Respondents are representing the banking and financial services sector
- 16 % of the Respondents are part of the construction and engineering services sector

- 12 % of the surveyed companies are with main business in the consumer packaged goods (CPG), retail, wholesale, food and beverage industry

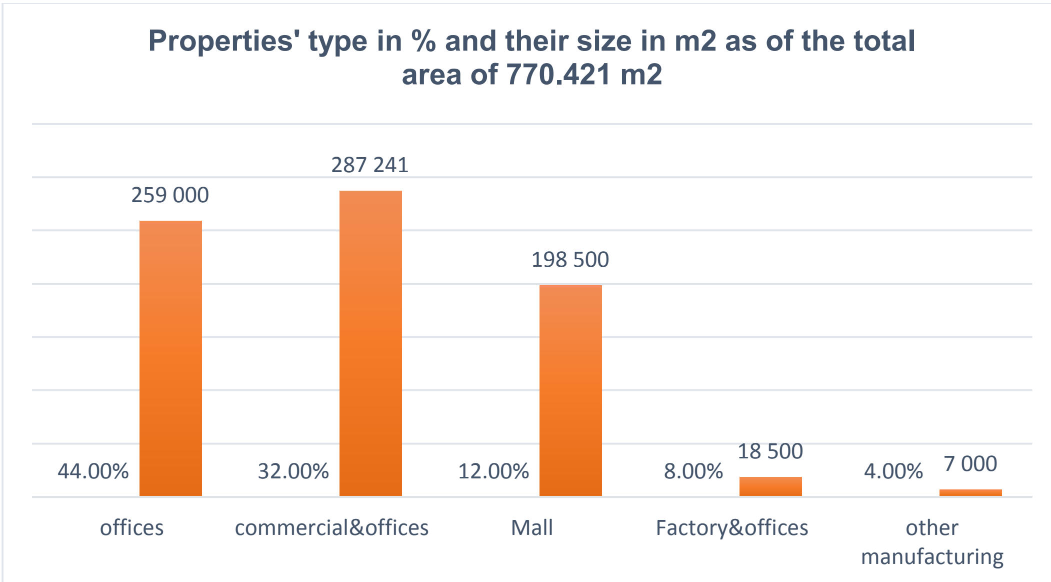


*Figure 6 - Properties'' Type in % and their size in m2 as of the total area of 770.421m2 (Survey Findings BG 2017)*

- 44 % of the surveyed companies' managers reported that they are in charge of the management of office premises with the total area of 259.000m2.
- 32 % of the surveyed companies' managers reported that they are in charge of the management of more than 287.241 m2 commercial and office premises (one of the surveyed companies didn't provide info regarding their real estate portfolio size).
- 12 % of the surveyed companies are managing more than 198.500 m2 Shopping Malls area (one of the Malls didn't reveal its Building's size).
- 8 % of the respondents are in charge of the Facility Management of Factories and Offices.
- 4 % reported to be in charge of the Facility Management of other manufacturing premises of 7.000m2, used for European – aircraft's maintenance, repair and overhaul.

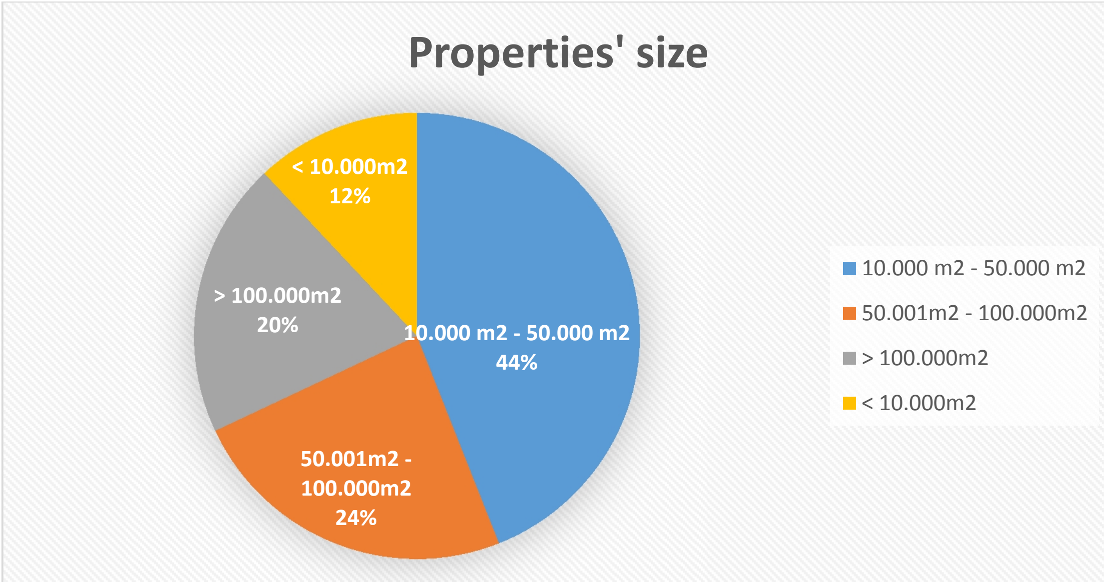


*Figure 7 - Properties' size of the surveyed Companies (Survey Findings BG 2017)*

- Small and medium size facilities, ranging in the size of 10.000 m2 till 100.000 m2, representing 80 % of the total facilities are the most common to be under the FM Departments of the surveyed companies.
- Only 20% of the Respondents are responsible for the Facilities management of Properties above 100.000m2.

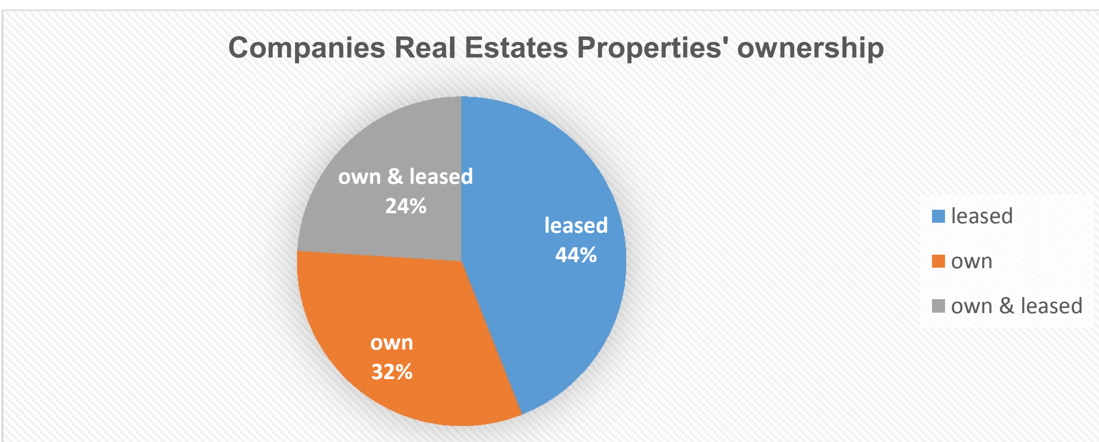


*Figure 8 - Real Estate Portfolio Ownership Status – Survey Findings BG 2017*

- 44 % of the surveyed companies lease the premises as they prefer to place the companies' working capital into their core business. Also the companies consider the substantial tax benefits like deducting the lease costs from the taxable income. Last but not least the maintenance of the leased properties stays in the hands of the owners.

There is not to be underestimated also a continuing trend of using less $m^2$ per employee and the shrinking working population as found by Lokhorst et al. (Lokhorst, 2013, pp. n/a, secondary citation), quoted by (Voordt, 2017, p. 243 of 346)

"Financial and real estate crisis and new ways of working reduce the need for office space, and office markets become replacement markets without a quantitative need for new office buildings" (Lokhorst, 2013, pp. n/a, secondary citation), quoted by (Voordt, 2017, p. 243 of 346)

"The implementation of new ways of working by sharing a variety of activity-based workplaces started as early as the early 1990s and is expected to continue. New ways of working is an umbrella concept covering flexible ways of working, including office types like e.g. the home office, working in cafes or other public spaces, flex offices and more." (Van Meel, 2015, pp. n/a, secondary citation), quoted by (Voordt, 2017, p. 243 of 346)

When a company uses less $m^2$ the Company will deal with vacancies whose consequences are affecting the value of the asset. The market value of a vacant building is much less than the value of an occupied building, as it is based on the potential rental income. Moreover, assessments of the market value become less reliable the higher the vacancy level and the longer the vacancy lasts. (Schiltz, 2006, pp. n/a, secondary citation), quoted by (Voordt, 2017, p. 244 of 346). Hence many companies prefer to lease the properties and are uncertain when their purchase comes into consideration.

### 4.2. The Profile of the Managers' respondents

The respondents in the current survey are represented by:

- 32 % Managers from the Top Management Level ( among them: Chief Operating Officers (COO): 16%, Chief Executive Officers (CEO):12% and Chief Financial Officers (CFO): 4%) and
- 68 % second level Managers (Operational Managers) - among them: 36% Managers (Operative Managers) and 32% Facility Managers.

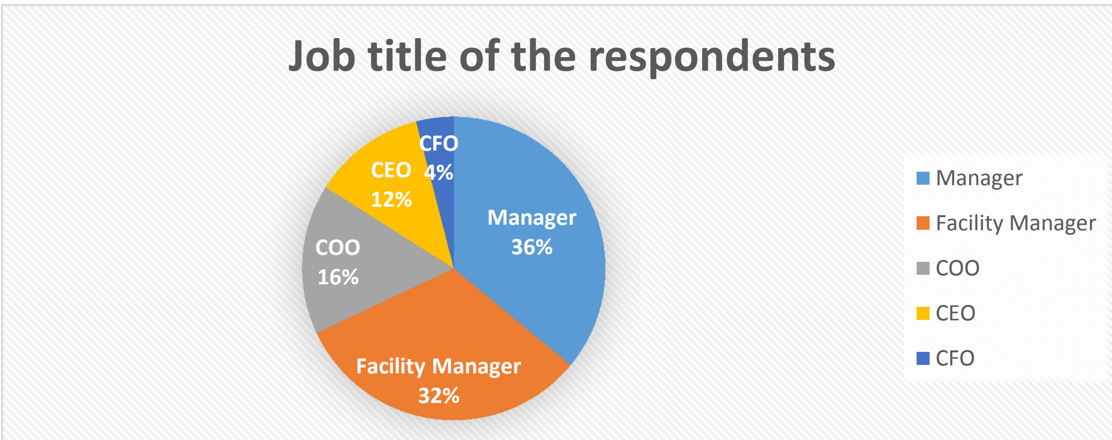


*Figure 9- Respondents' Position in the surveyed Companies in BG*

| Position | % from the total Respondents |
|---|---|
| Manager | 36.00% |
| Facility Manager | 32.00% |
| COO | 16.00% |
| CEO | 12.00% |
| CFO | 4.00% |
| **Grand Total** | **100.00%** |

*Table 3- Respondents' position in the surveyed Companies in BG*

The above data proves that "the Facility Manager is no longer focused on a narrow technical field where the language is "FM speak", but now has the expanded viewpoint of a business leader who helps the organization take a strategic view of its facilities and their impact on productivity. (Kathy O. Roper and Richard P. Payant, 2014, pp. Loc. 273 of 11947 - e-book)

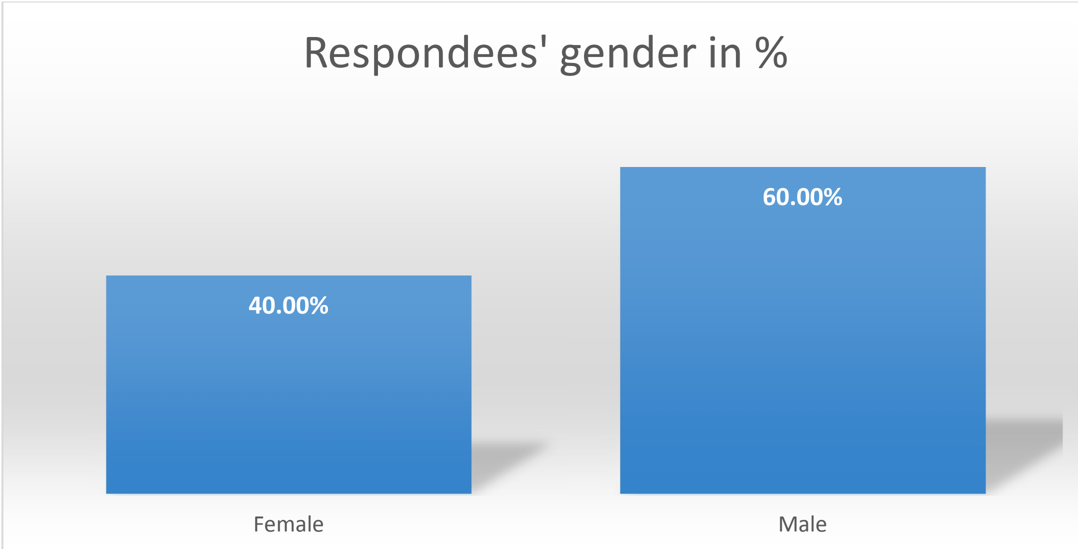


*Figure 10 - The Gender Respondents' Ratio*

- 40 % of the surveyed managers are women and 60 % men, an indicator that the women are almost equally positioned in the field of the companies' Real Estate Properties Management.

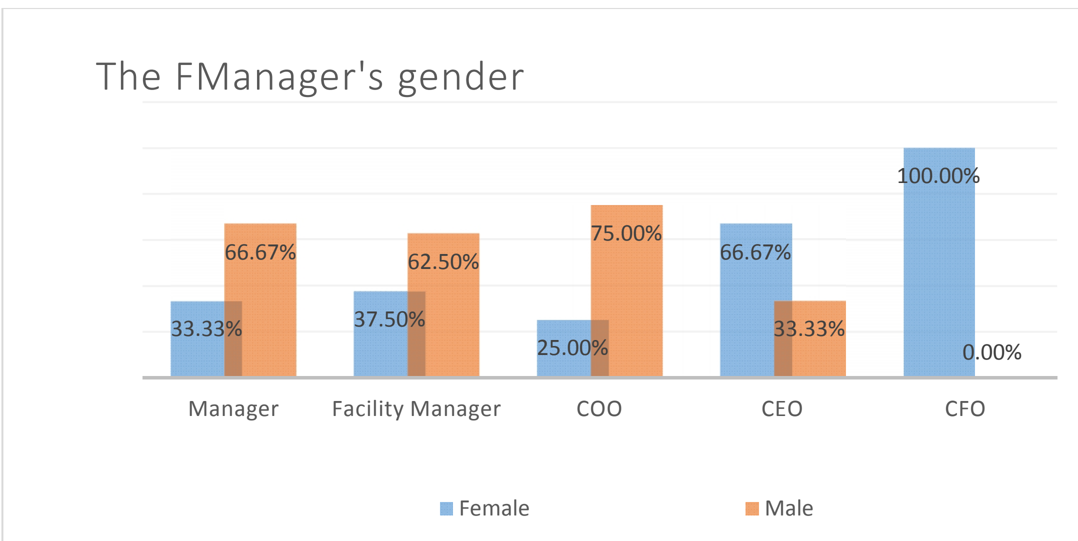


*Figure 11- The Gender respondents' Ratio – detailed info*

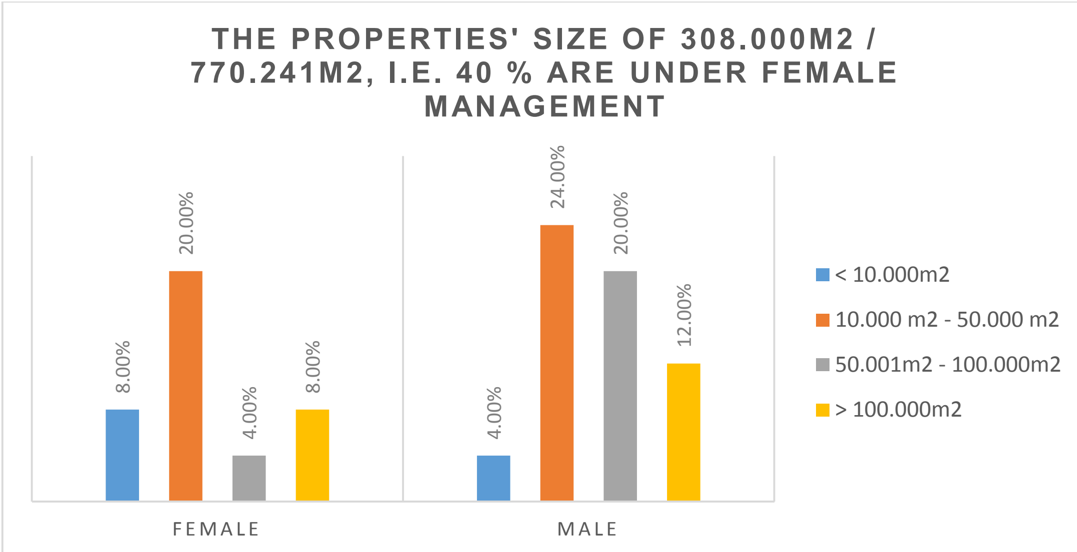


*Figure 12 - The ratio of female/male Managers in charge of the Companies Properties according to their size*

- Properties below 10.000m2 (represented by office buildings, commercial and office buildings) are preferred to be managed by the female managers: 8% female Managers versus 4 % male Managers.
- Properties in the range of 10.000 m2 - 50.000m2 (represented by office buildings, mixed usage buildings and manufacturing utilities buildings) are almost equally managed by women and men: 20 % female managers versus (vs) 24 % male managers.
- Properties in the range of 50.001m2 – 100.000m2 (represented mainly by Shopping Malls) are managed preferably by male managers: 20 % male managers vs 4 % female managers.
- Properties above 100.000m2 (mainly Shopping Malls) are almost equally managed by female and male managers: 8 % female managers vs 12 % male managers.

## 4.3. Companies with their own Facility Management (FM) Department in Bulgaria and compared to Austria, Germany, Romania and Spain

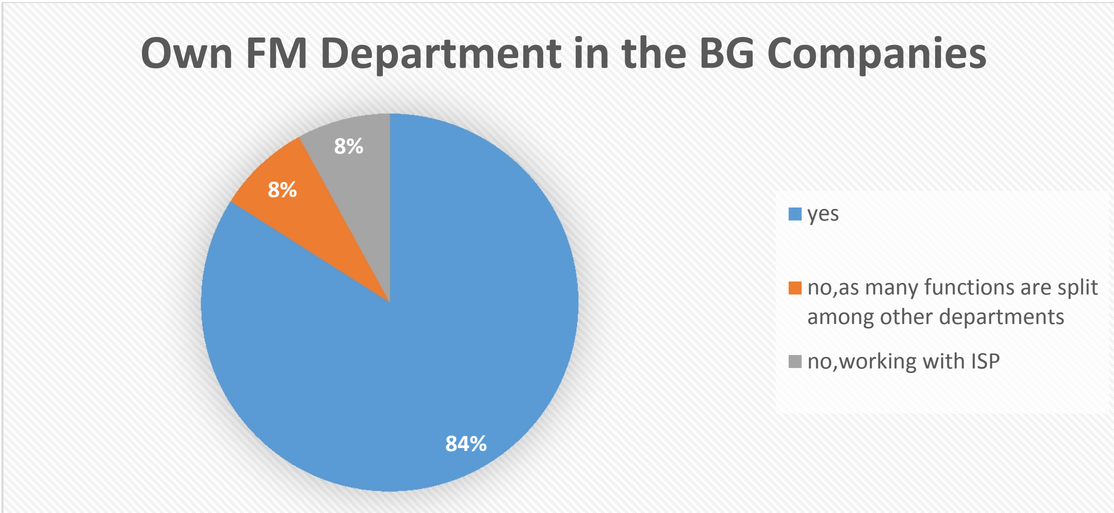


*Figure 13- Percentage of the surveyed Bulgarian Companies with their own FM department (as of 07/2017),*ISP-Integrated Services Provider*

- 84 % of the surveyed companies operate their own FM Department within their company's structure.
- 16 % of the companies manage their Real Estate Properties without an in-house FM unit operation: 8 % of the Respondents have split the Facilities Management functions among other Companies Units' responsibilities and 8 % of the Respondents have subcontracted all the FM services to an Integrated Services Provider (ISP).

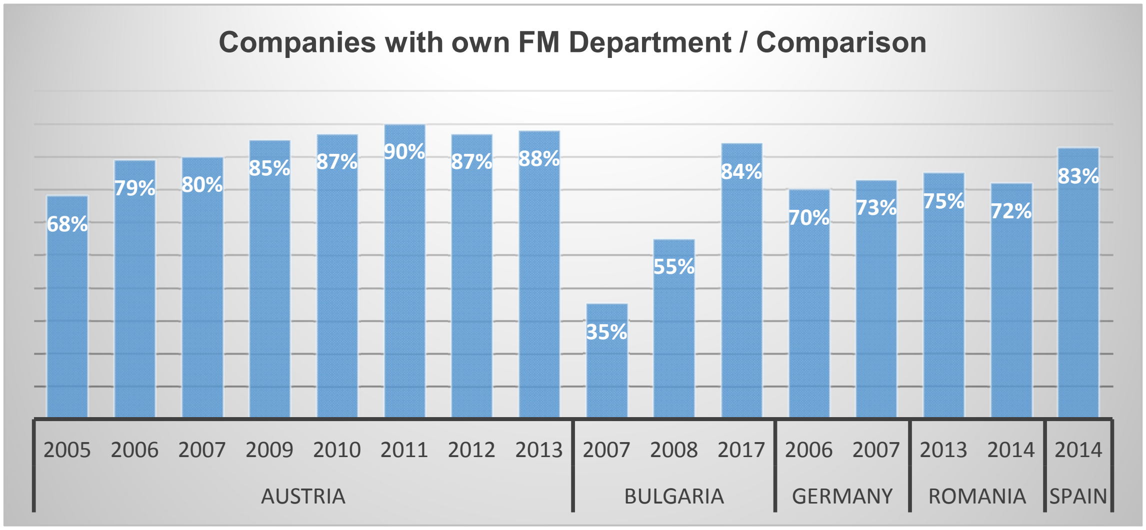


*Figure 14 - Percentage of Companies with their own FM department / Comparison based on data supplied by Prof. Redlein, TU Wien in his A1_Skriptum_Value_Added (Ao.Univ.Prof.Dr.Alexander Redlein, A1_Skriptum-Value_Added, 2015, p. 3)*

- In Year 2011 Austria was the country with the highest % of companies managing their Real Estate Properties with an in-house FM department – nine out of ten companies were having their own FM in-house unit. And following up the data for Austria, starting with 68 % in Year 2005 the trend is clear that the Austrian Companies are convinced that managing facilities with an in-house FM Departments is more efficient.
- The same "In-house FM Unit Trend" is followed by Bulgaria, starting out with 35 % in Year 2007 and reaching 84 % in Year 2017, Germany – with seven out of ten Companies operating their own FM Department ( based on the Years 2006&2007 data) and respectively with 72% for Romania and 83 % for Spain.

## 4.4. The Number of the Facility Management Departments staff in Bulgaria and compared to Spain, Austria and Romania

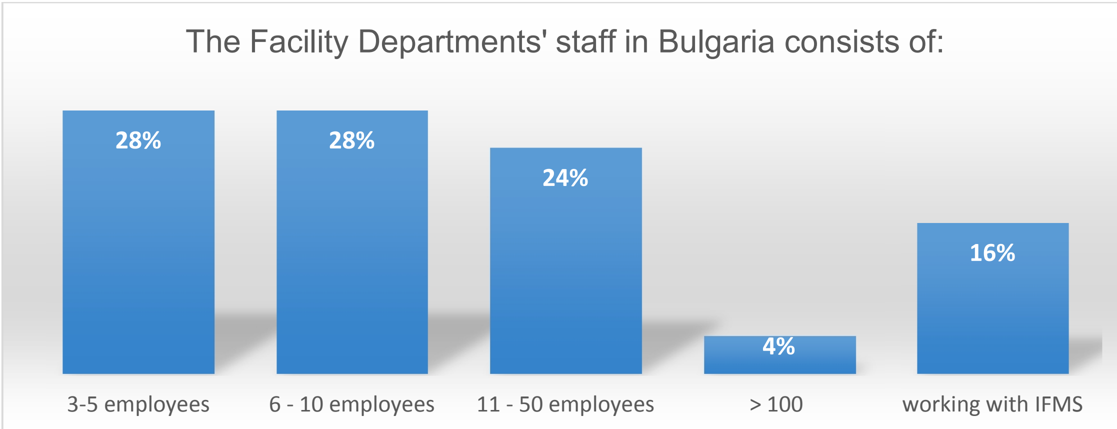


*Figure 15- Number of FM Department's employees / Bulgaria 2017, * IFMS – Integrated Facilities Management Services Supplier*

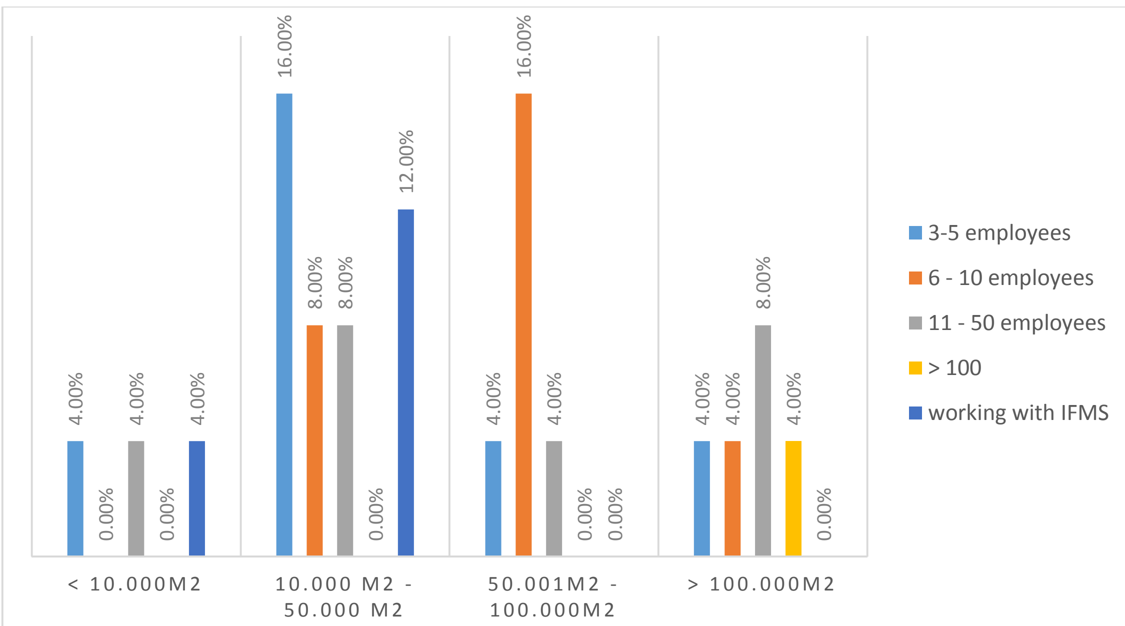


*Figure 16 - The usual Properties size that the FM Employees are in charge of (Survey findings BG 2017), *IFMSS-Integrated Facilities Management Services Supplier*

- The most Bulgarian (BG) companies (44%) work with FM Unit's staff up to 5 employees. In this group we include also the 16 % of the surveyed companies, that have stated that they work exclusively with an Integrated Facilities Management Supplier (IFMS), thus one of the company's managers is also in duty of the FM' supervision. The usual size of the properties that are under the management of 1 to 5 employees are those with an area of 10.000m2 - 50.000m2.

- 28 % of the BG companies work with FM unit staff of 6 to 10 employees and those size of FM unit is in charge of properties from 50.001m2- 100.000m2.
- 24 % of the BG companies work with FM Unit staff of 11 to 50 employees and those size of FM Unit is in charge of management of all size of properties.
- Only 4 % of the surveyed companies have an in-house FM unit with more than 100 employees and those are managing properties of more than 100.000m2.

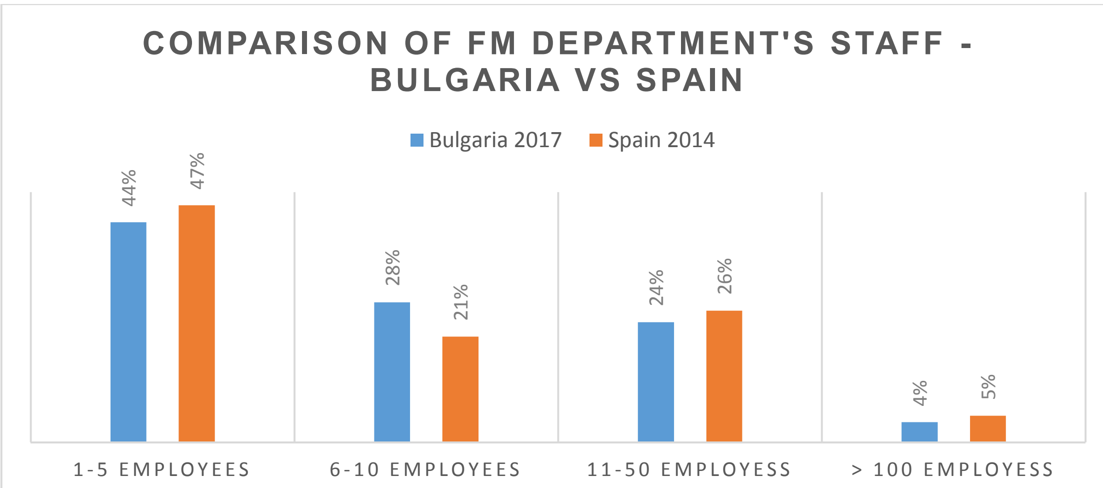


*Figure 17- Number of FM Department's employees - Bulgaria vs Spain (source for Spain: Survey done by Bayon Octavio Alex) (Alex Octavio Bayon, 06/2014)*

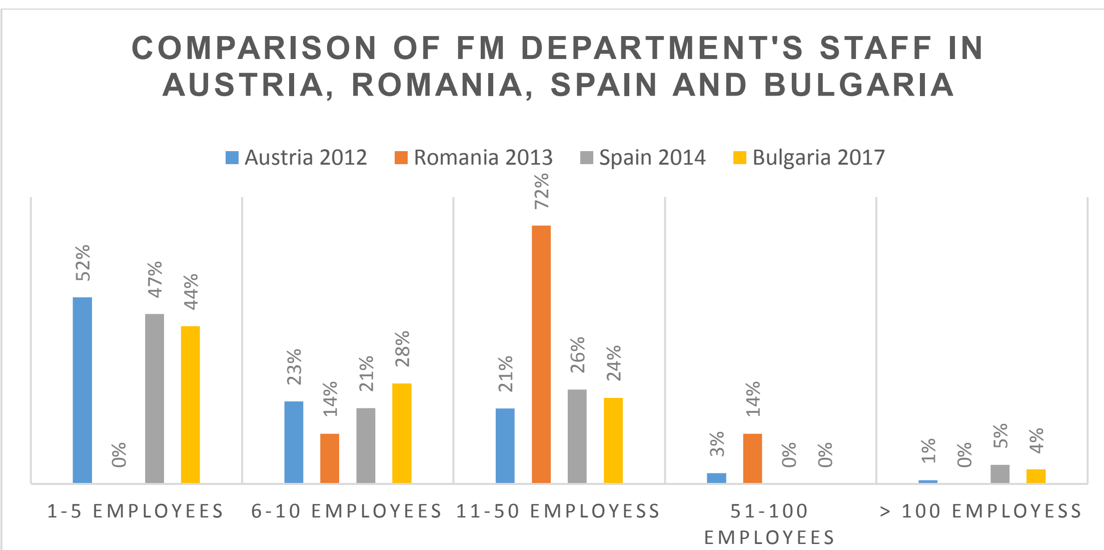


*Figure 18- Number of FM Department's employees in Austria, Romania, Spain and Bulgaria (source: (Ao.Univ.Prof.Dr.Alexander Redlein, A1_Skriptum-Value_Added, 2015)*

### 4.5. Do Companies with big number of employees tend to work also with big number of employees into their in-house FM Departments and what is the size of the Companies that choose to work with Integrated Facilities Services Provider?

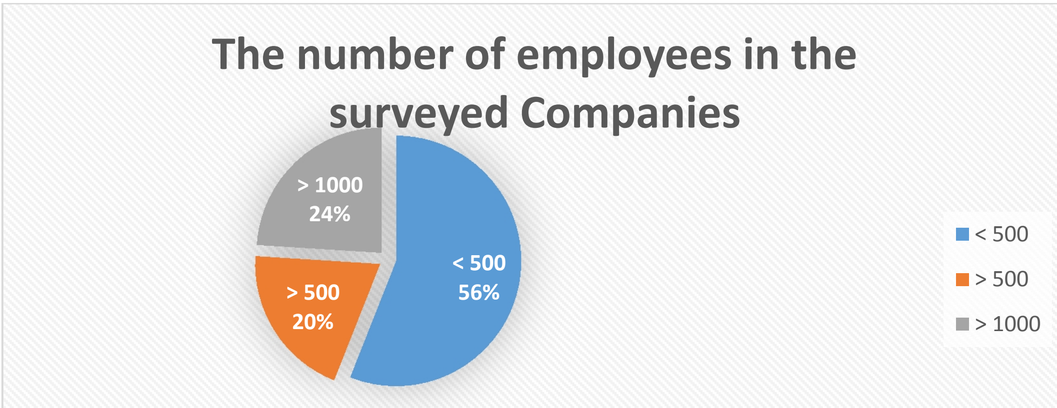


*Figure 19– Surveyed Companies total staff*

| FM Department's staff | Total Co. Staff < 500 | Total Co. Staff > 500 | Total Co. Staff > 1000 | Grand Total |
|---|---|---|---|---|
| 3-5 FMD's staff | 20.00% | 8.00% | 0.00% | 28.00% |
| 6 - 10 FMD's staff | 20.00% | 0.00% | 8.00% | 28.00% |
| 11 - 50 FMD's staff | 4.00% | 8.00% | 12.00% | 24.00% |
| > 100 FMD's staff | 0.00% | 0.00% | 4.00% | 4.00% |
| working with IFMS* | 12.00% | 4.00% | 0.00% | 16.00% |
| **Grand Total** | **56.00%** | **20.00%** | **24.00%** | **100.00%** |

*Table 4 - Companies' Total Staff and FM departments' staff, *IFMSS – Integrated Facilities Management Services Supplier*

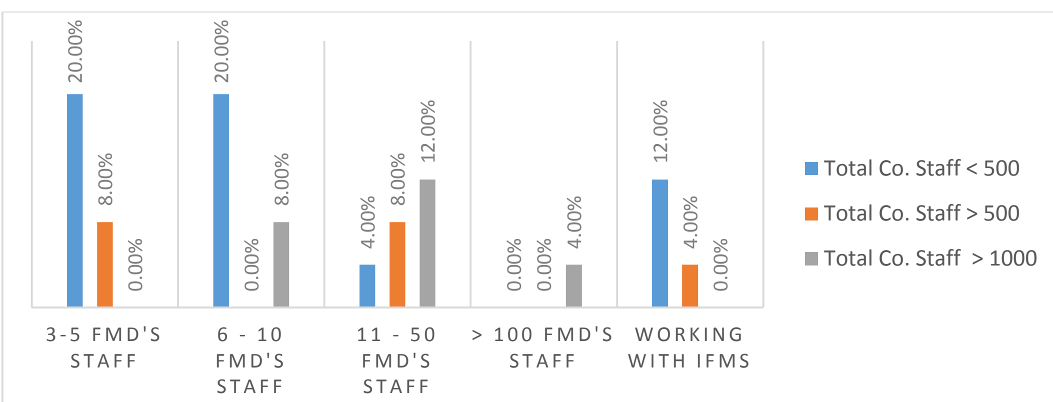


*Figure 20 - Surveyed Companies total staff and their FM Departments' Staff, *IFMSS – Integrated Facilities Management Services Supplier*

- 72 % of the surveyed companies work with FM units consisting of up to 10 employees (in this group we add the respondents who work with Integrated Facilities Management Supplier, i.e. 16%).
- 24% of the Respondents stated that their FM units consist of 11 up to 50 employees.
- And only 4 % of the Respondents are running FM units with more than 100 employees.

| Area under FM | 3-5 employees | 6 - 10 employees | 11 - 50 employees | > 100 employees | working with IFMSS* | Grand Total |
|---|---|---|---|---|---|---|
| < 10.000m2 | 4.00% | 0.00% | 4.00% | 0.00% | 4.00% | 12.00% |
| 10.000 m2 - 50.000 m2 | 16.00% | 8.00% | 8.00% | 0.00% | 12.00% | 44.00% |
| 50.001m2 - 100.000m2 | 4.00% | 16.00% | 4.00% | 0.00% | 0.00% | 24.00% |
| **> 100.000m2** | **4.00%** | **4.00%** | **8.00%** | **4.00%** | **0.00%** | **20.00%** |
| **Grand Total** | **28.00%** | **28.00%** | **24.00%** | **4.00%** | **16.00%** | **100.00%** |

*Table 5 - The in-house FM Units' Staff and the Real Estate Portfolio size they are responsible of;* IFMSS - Integrated Facilities Management Services Supplier*

Targeting to achieve more with less employees is not a new trend, bearing in mind that No.1 expenses in the companies' Income Statements are related to the salaries. Thus is understandable why only 4 % of the surveyed companies (those with more than 1000 employees) have a FM Department with more than 100 employees. And justifying a number of employees in the FM Department greater than 100 employees requires in addition a big Real Estate Portfolio: Only Companies in charge of properties bigger than 100.000 m2 justify a number of FM Unit's staff more than 100 employees. (Table 5)

## 4.6. Hierarchic level of the FM Departments in the Bulgarian Companies

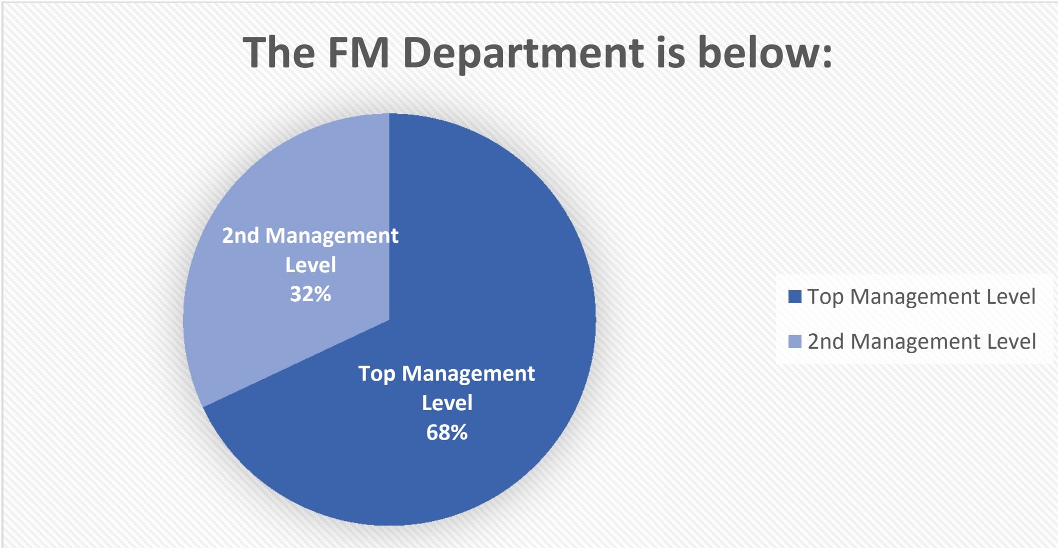


*Figure 21 - Hierarchic level of FM department*

In seven out of ten Bulgarian Companies the Facility Management Department is placed directly below the Chief Executive Officer (CEO). The Facility Manager reports directly to the CEO thus the Facility Manager in the Bulgarian companies is placed at the same level with the Chief Financial Officer (CFO), Chief Operating Officer (COO), Chief Information Officer (CIO) or the Human Resources (HR) Officer. We have to bear in mind also that in many of the Bulgarian Companies there is a trend of mixed duties of the Managers: it is often common that the CFO or the COO is also in duty of reaching the strategic goals of the FM department as it's believed that the decision processes are more appropriate. The Companies' BoDs (Board of Directors) realize that the real estate facilities and their costs are impacting the financial results and they want to stay in direct control over those expenses. The tactical and operational FM goals are executed by the FM Department's staff.

In three out of ten companies the Facility Management department is placed below the CFO or COO.

### 4.7. Frequency of the Meetings with the Company's upper management body (CEO, BoDs, etc.)

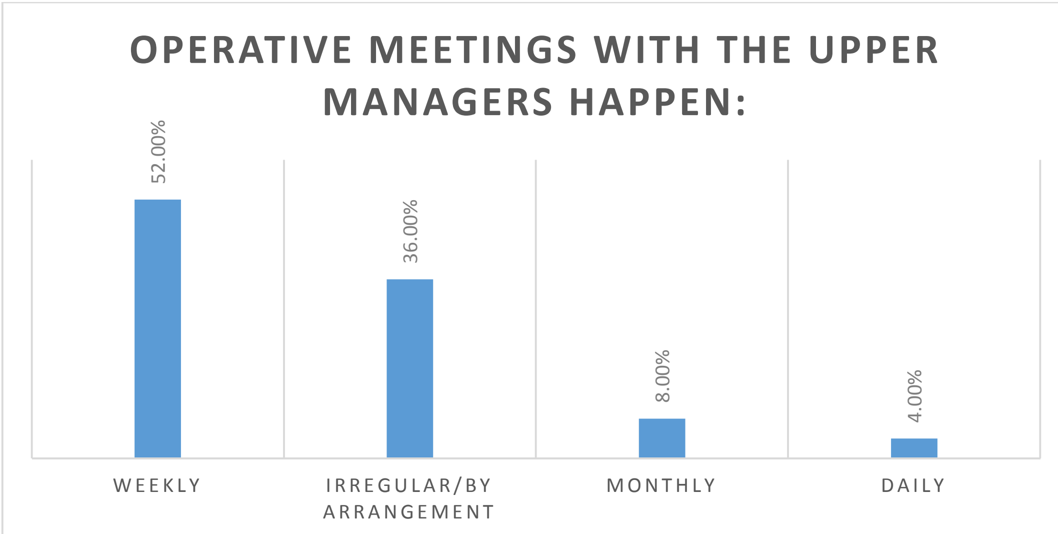


*Figure 22 - Contact with the upper Company's Management Body (Bulgaria 2017)*

- In every second BG Company the meetings with the upper management body are held weekly: an indicator for the FM strategic place.

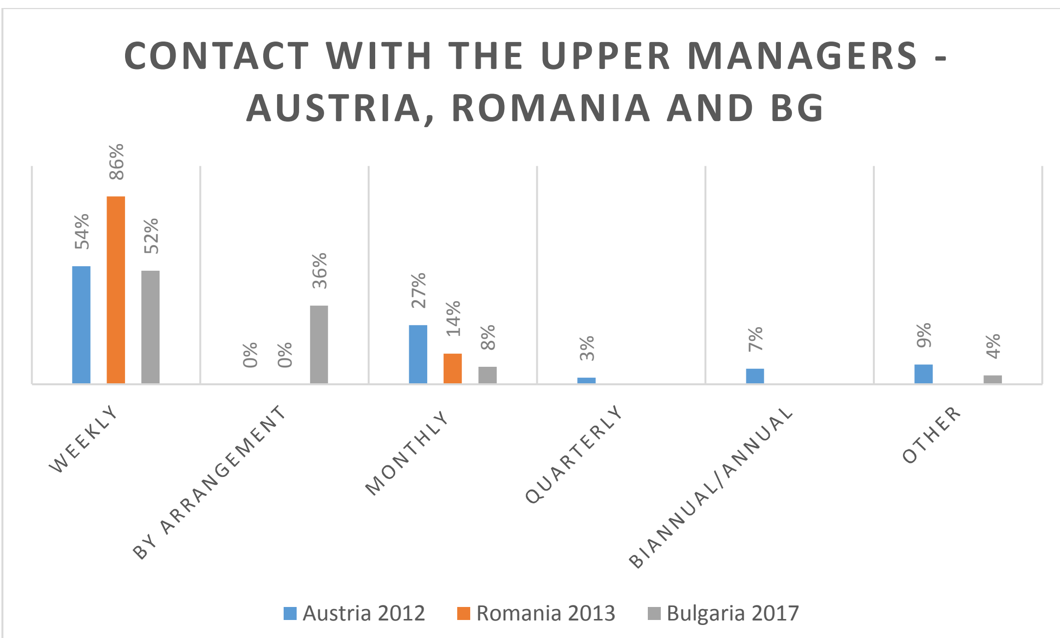


*Figure 23 - Contact with the upper Company's Management Body (Austria 2012, Romania 2013, and Bulgaria 2017) (Prof. Alexander Redlein, TU Wien, in cooperation with Real Estate User Group (REUG), TU Wien, A1_Skriptum_Redlein-Introduction, 22.03.2015)*

## 4.8. FM Departments' strategies

According to the Terms and Definitions of the EN 15221-1 the strategies of the FM departments are divided into three levels: strategic, tactical and operative level (Prof. Alexander Redlein, TU Wien, in cooperation with Real Estate User Group (REUG), TU Wien, A1_Skriptum_Redlein-Introduction, 22.03.2015, pp. 25,26,27,28):

### 4.8.1. Strategic Level:

- Defining the Facility Management strategy in compliance with the organization's strategy
- Policymaking, elaborating guidelines for space, assets, processes and services
- Active input and response
- Initiating risk analysis and providing the direction to adapt changes in the organization
- Initiating service level agreements (SLAs) and monitoring key performance indicators (KPIs)
- Managing the impact of facilities on the primary activities, external environment and community
- Maintaining relations with authorities, lessees and tenants, strategic partners, associations, etc.
- Supervision of the Facility Management organization

### 4.8.2. Tactical Level:

- Implementing and monitoring guidelines for strategies
- Developing business plans and budgets
- Translating Facility Management objectives into operational level requirements
- Defining SLAs and interpreting KPIs (performance, quality, risk and value )
- Monitoring compliance to laws and regulations
- Managing projects, processes and agreements
- Managing the Facility Management (FM) Team
- Optimizing the use of resources
- Adapting to and reporting on changes
- Communicating with internal or external service providers on a tactical level

### 4.8.3. Operative Level:

- Delivering services in accordance with the SLAs
- Monitoring and checking the service delivery processes
- Monitoring the service providers
- Receiving requests for service e.g. via a help desk or service line
- Collecting data for performance evaluations, feedback and demands from end users
- Reporting to tactical level
- Communicating with internal or external service providers on an operational level

### 4.8.4. Which are the FM Departments' Strategies that the Bulgarian Companies are primarily focused to

As per the survey's findings the Bulgarian Companies have evaluated the FM strategy's importance as following:

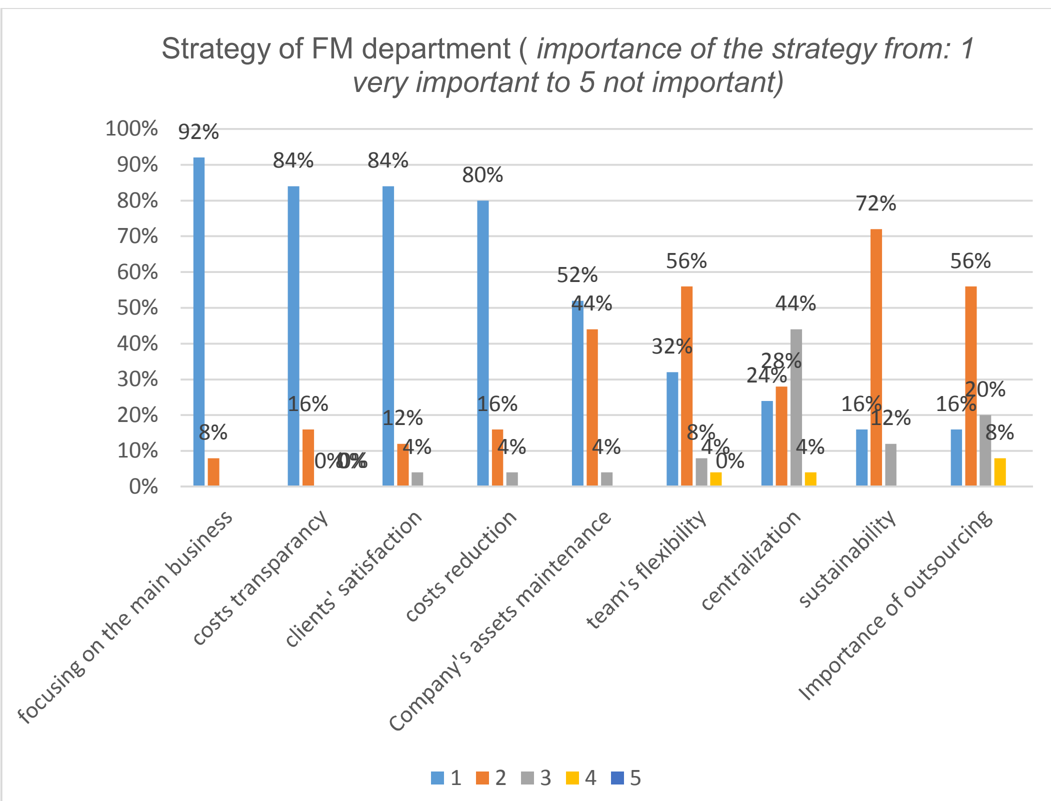


*Figure 24 - The primarily Strategies of FM Departments into the Bulgarian Companies (Survey Findings Bulgaria 2017)*

- The most important strategies ( as shown in Figure 25) that the BG FM Departments target to achieve are not merely related to costs' reduction :
    - As No.1 FM Departments' goal was stated the responsibility the FM Unit has toward contributing the flawless Company's core business performance: 92 % of the Respondents have chosen the answer: "assisting the Company to focus on its core business activity".
    - Costs transparency and clients' satisfaction come on secondary place, being chosen by 84 % of the surveyed companies.
    - Costs reduction comes on fourth place – being chosen by 80% of the Respondents.
    - The importance of environmental issues has been selected by 72 % of the surveyed Companies.

### 4.9. Savings that the Companies believe are achieved with the in-house FM department:

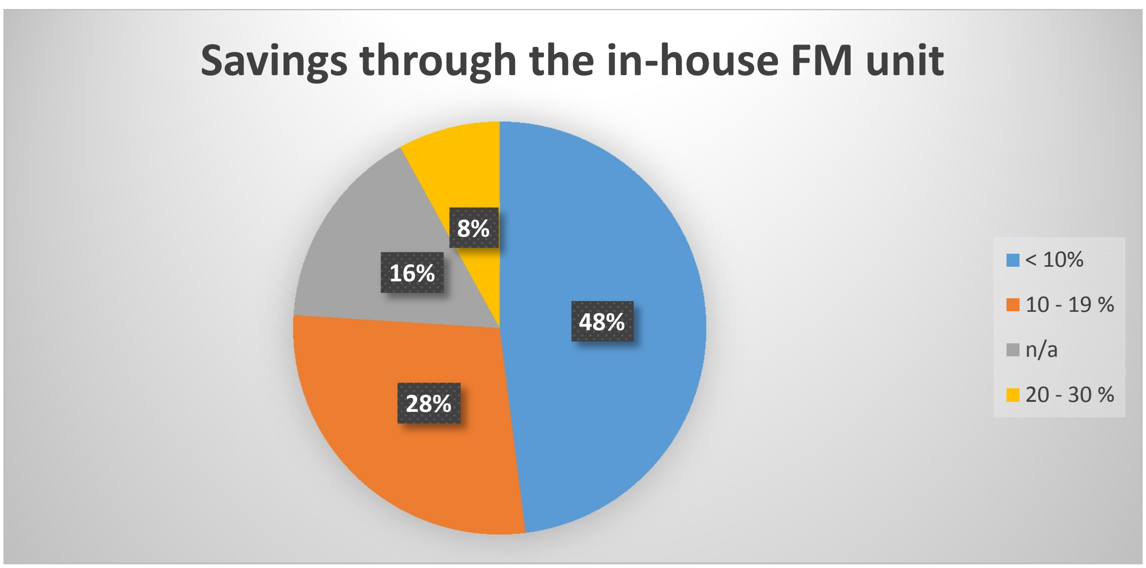


*Figure 25 - % of savings the Companies believe achieve thanks to their in-house FM Unit - Survey Findings Bulgaria 2017*

- 48 % of the Respondents have indicated savings achieved through their in-house FM department to be less than 10%.
- 28 % of the Respondents achieve savings between 10-19%.
- 8 % of the surveyed companies achieve savings between 20-30%.
- 16 % of the surveyed companies didn't give information if their companies achieve savings through the in-house FM department operation (mostly because not being able to access the financial data when answering this question.)

### 4.9.1. Comparison of the savings in the main Facility Management Fields achieved by Companies with and without an in-house FM Unit

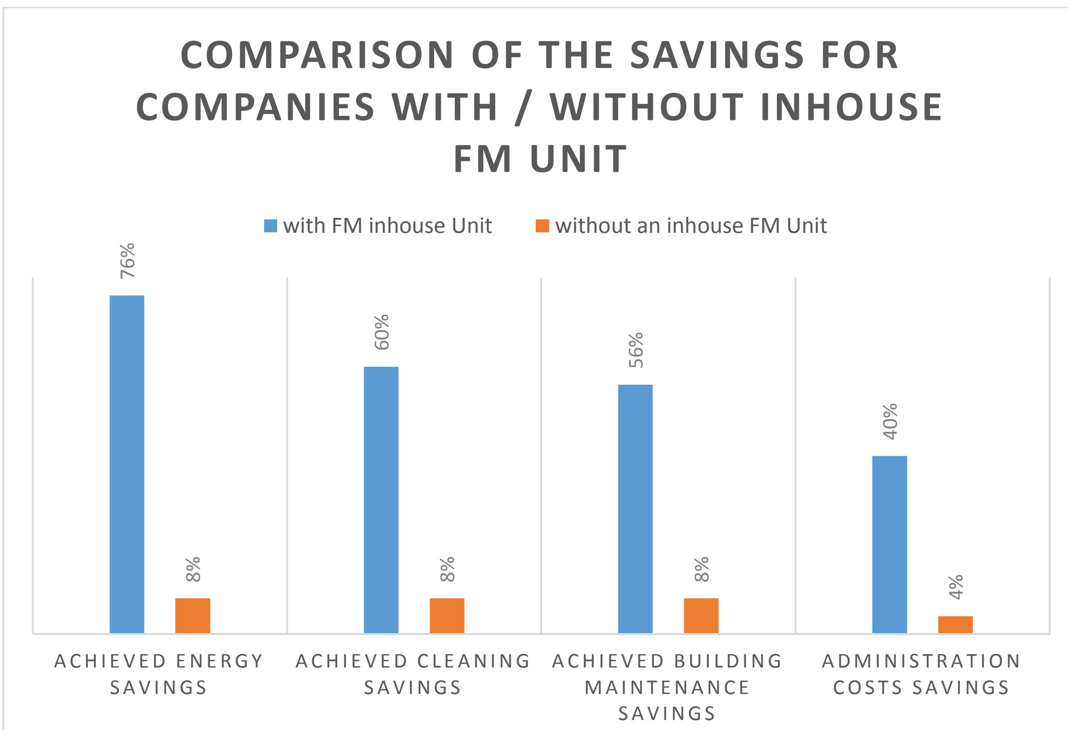


*Figure 26 - Comparison of the FM savings for Companies with / without an in-house FM Unit, Bulgaria -2017*

The Respondents in the 2017-Bulgaria Survey achieve bigger cost savings when having their own in-house FM Department / Unit.

| Fields of savings | Total % of the Companies that achieved savings | Savings achieved with FM in-house Unit | Savings by Companies without an in-house FM Unit |
|---|---|---|---|
| Achieved energy savings | 84% | 76% | 8% |
| Achieved cleaning savings | 68% | 60% | 8% |
| Achieved building maintenance savings | 64% | 56% | 8% |
| Administration costs savings | 44% | 40% | 4% |

*Table 6 - % of the Companies that achieved savings (comparison between those with and without an in-house FM Unit – Bulgaria 2017)*

- Eight out of ten companies have stated that thanks to their in-house FM Units they were able to be more energy cost efficient, i.e. 76 % of the Respondents were able to achieve energy savings through their FM Departments versus (vs) only 8 % of the companies operating without an in-house FM Department.
- The other most substantial savings the surveyed companies indicated were in the fields of: cleaning services – 60 % with an in-house FM Unit vs 8 % without; 56% in the building maintenance services vs 8% and 40% achieved administration savings vs 4 % of the companies without an in-house FM Unit.

### 4.9.2. The factors behind the achieved savings

The most important factors that contributed to those savings were indicated to be:

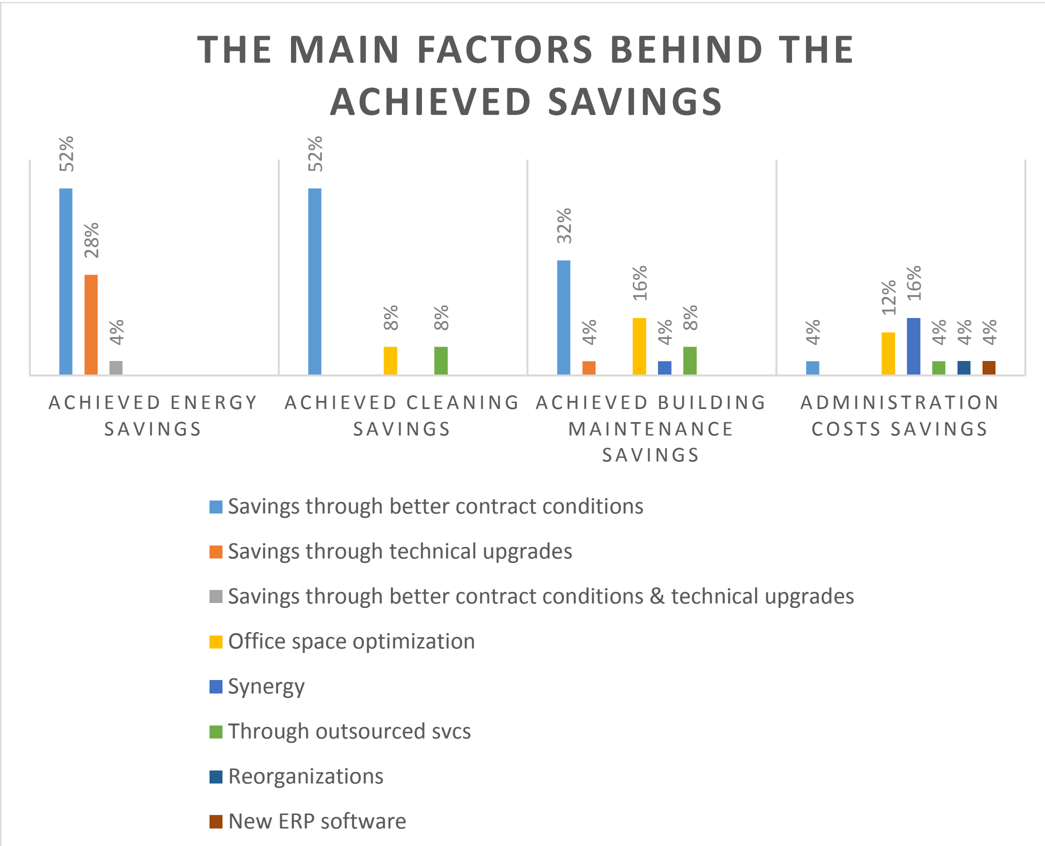


*Figure 27-The factors behind the facilities services savings*

### 4.9.3. Energy Savings and Energy Management

Energy management is not a separate function but rather an activity that concerns every facility system. Modern energy management has its genesis in the oil crisis of the early 1970s whose consequences were:

- Remarkably more efficient energy – consuming equipment and
- An understanding that energy is a major cost element and needs to be controlled.

The sustainability movement reinvigorated the interest in energy management when, in 2007, utility costs, especially those of fuels and natural gas, skyrocketed. Even before this happened, a good energy management program could yield utility cost savings averaging, conservatively, 30 to 33 percent. Energy represents about 30 percent of a building's operational costs. A 30 percent reduction in energy consumption for a company in California, for example, can lower building operating costs by USD 25,000 per year for every 50,000 square feet (4,645 m2) managed. For every $1 invested in energy efficiency, building asset value increases by an estimated $3. (Secondary Citation, n/a) cited by: (Kathy O. Roper and Richard P. Payant, 2014, pp. loc.6324 of 11947 - ebook)

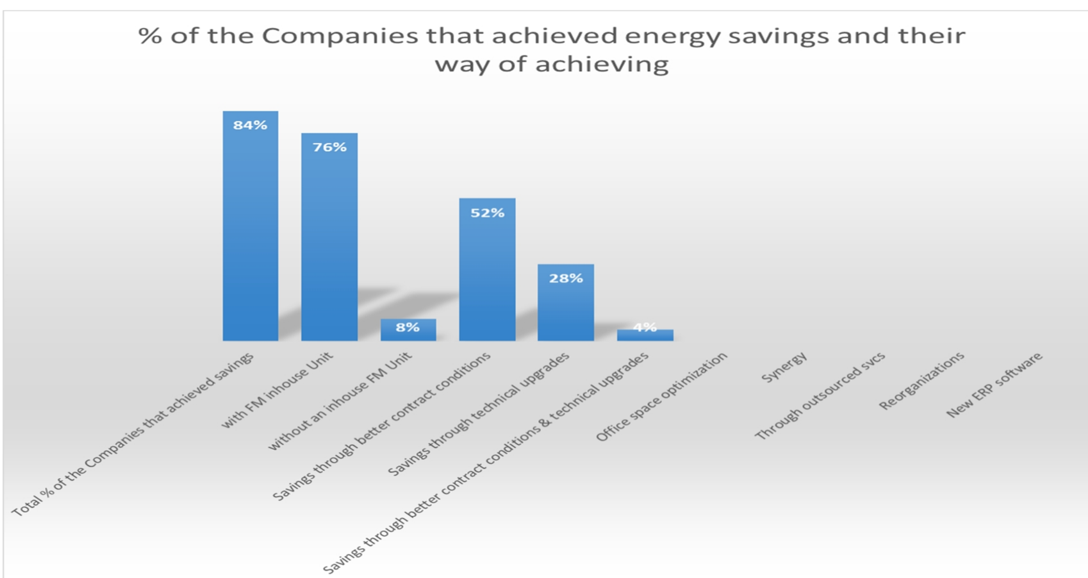


*Figure 28 - % of the Companies that achieved energy savings and how they achieved them – Survey findings Bulgaria 2017*

| Energy Savings ( Year 2016 vs 2015 ) | | | |
|---|---|---|---|
| | **no** | **yes** | **Grand Total** |
| better contract conditions | 0% | 52% | 52% |
| technical upgrade | 0% | 28% | 28% |
| better contract conditions & technical upgrade | 0% | 4% | 4% |
| no savings | 16% | 0% | 16% |
| **Grand Total** | **16%** | **84%** | **100%** |

*Table 7 - % of Companies who achieved energy savings and how (2016 vs 2015 - Bulgaria - Survey findings)*

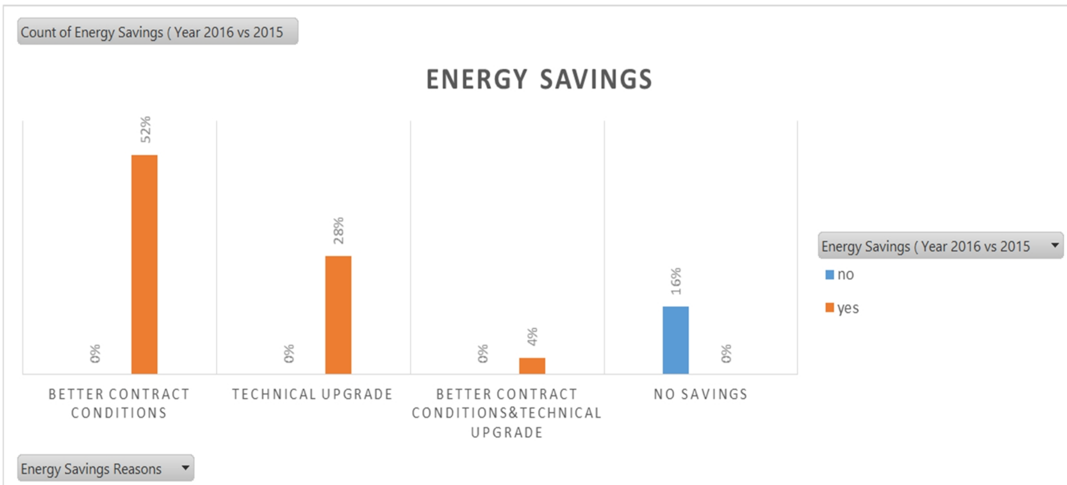


*Figure 29 - The factors behind the energy savings (2016 vs 2015 - Bulgaria - Survey findings)*

- ✓ 84 % of the Respondents have answered that they had achieved energy savings in the range of 10-20 % (according to their fiscal data 2016 versus 2015). The reasons that contributed to those savings were:
- ✓ 52 % indicated the better contract conditions that their Companies were able to renegotiate. Part of the better contract conditions come as a result from the liberalized energy market, giving the opportunity an energy supplying Company to be chosen freely.
- ✓ 28 % believe that the energy savings were due to the integration of energy-savings technologies.
- ✓ 4 % are the Respondents state that behind their energy savings are both the better contract conditions & the integrated energy efficient solutions.
- ✓ 16 % have stated that they hadn't achieved savings because of the increased Companies area of vacant company's properties.

### 4.9.4. Building maintenance savings

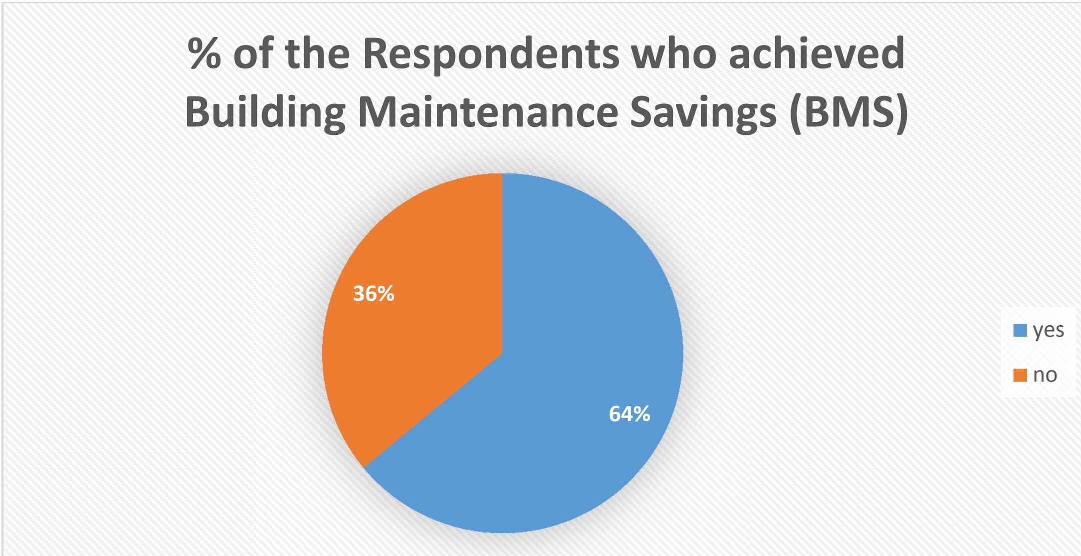


*Figure 30 - % of the Respondents who achieved Building Maintenance Savings (BMS)*

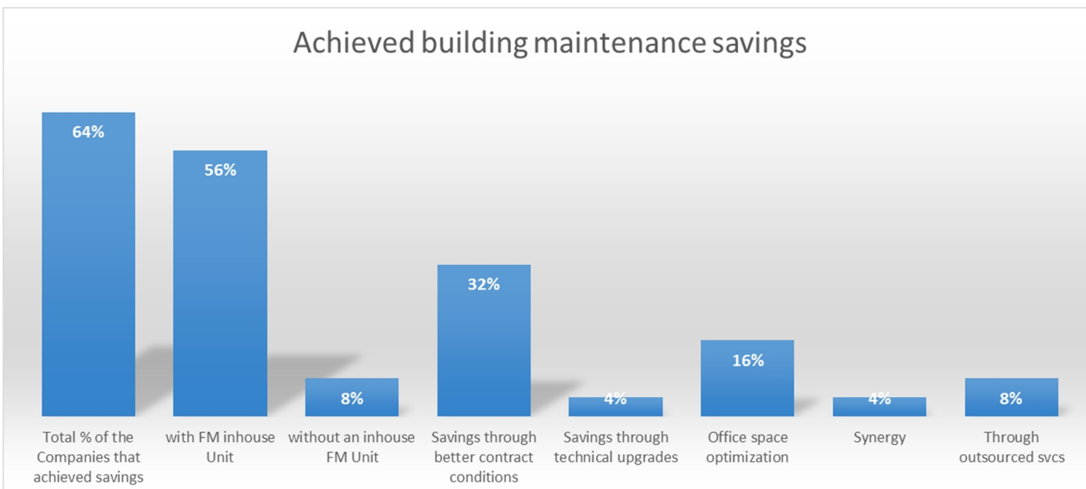


*Figure 31 - % of the Companies with / without an in-house FM Unit who achieved savings in the field of Building's Maintenance and how those savings were achieved - Survey Findings - Bulgaria 2017*

- 64 % of the surveyed Companies were able to achieve savings in the Building and Maintenance field, 56 % of those Companies were having their own in-house FM Unit and only 8 % of the Companies without an in-house FM Unit.
- The savings in the Building and Maintenance area were reached through:
  - Better contract conditions: 32 %
  - Office space optimization: 16%
  - Outsourced services (svcs) : 8%

- Utilization of synergies: 4 %
- Technical upgrades: 4%

- 36 % of the surveyed Companies didn't achieve savings in the Building and Maintenance: a result that shows a great potential into developing this part of the Facilities Management Market in Bulgaria. Typical for the Building Maintenance is its reactive approach as the Companies are missing the know-how for preventive maintenance. Another weak point is the lack of transparency of the previously done maintenance activities.

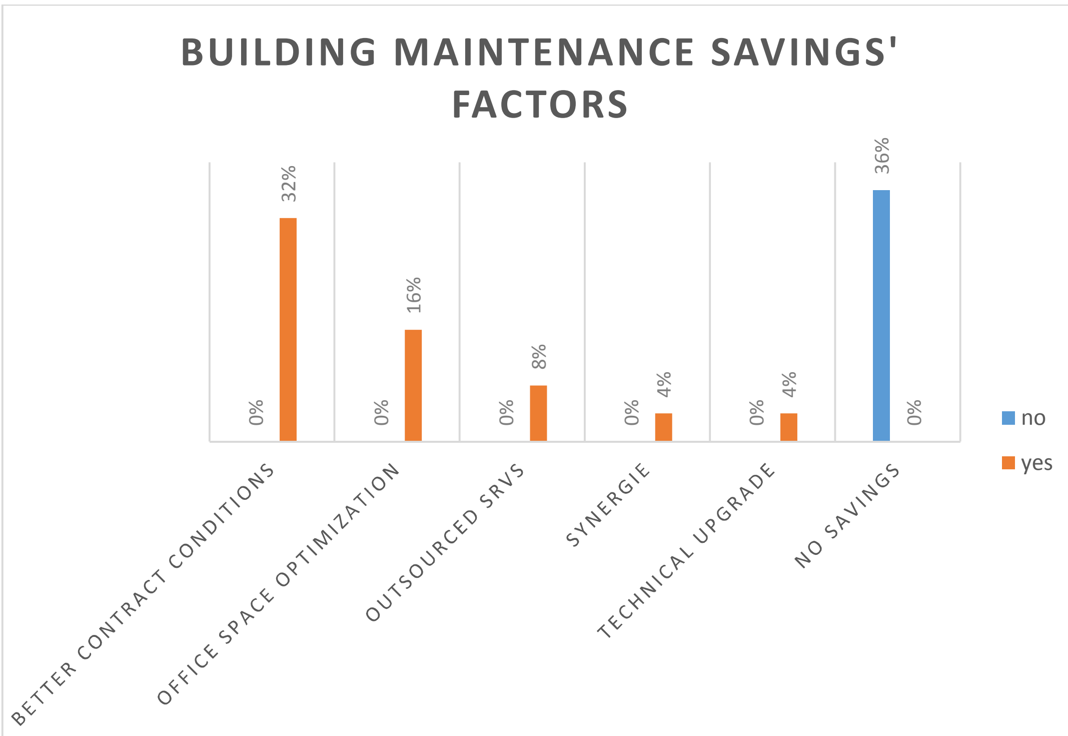


*Figure 32-Building Maintenance Savings' Factors*

### 4.9.5. Cleaning costs savings

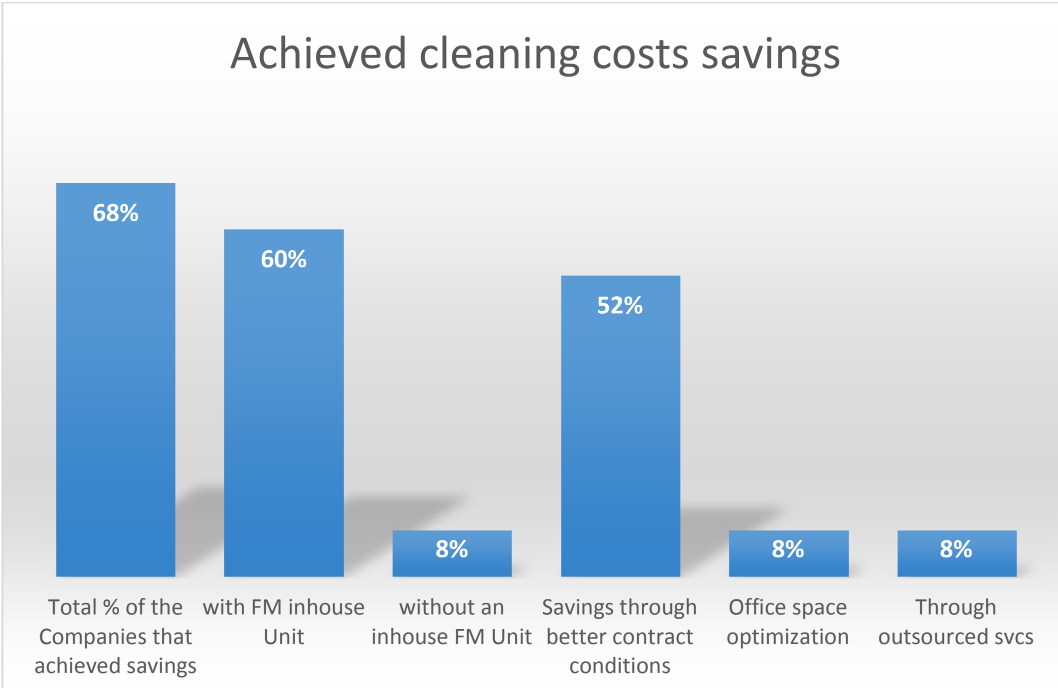


*Figure 33 - % of the Companies with and without an in-house FM Unit who achieved cleaning costs savings - Survey Findings 2017 Bulgaria*

| **Factors behind the cleaning savings** | **Column Labels** | | |
|---|---|---|---|
| **Row Labels** | **no** | **yes** | **Grand Total** |
| better contract conditions | 0% | 52% | 52% |
| office space optimization | 0% | 8% | 8% |
| outsourced service | 0% | 8% | 8% |
| no savings | 32% | 0% | 32% |
| **Grand Total** | **32%** | **68%** | **100%** |

*Table 8 - % of the Companies that achieved cleaning savings*

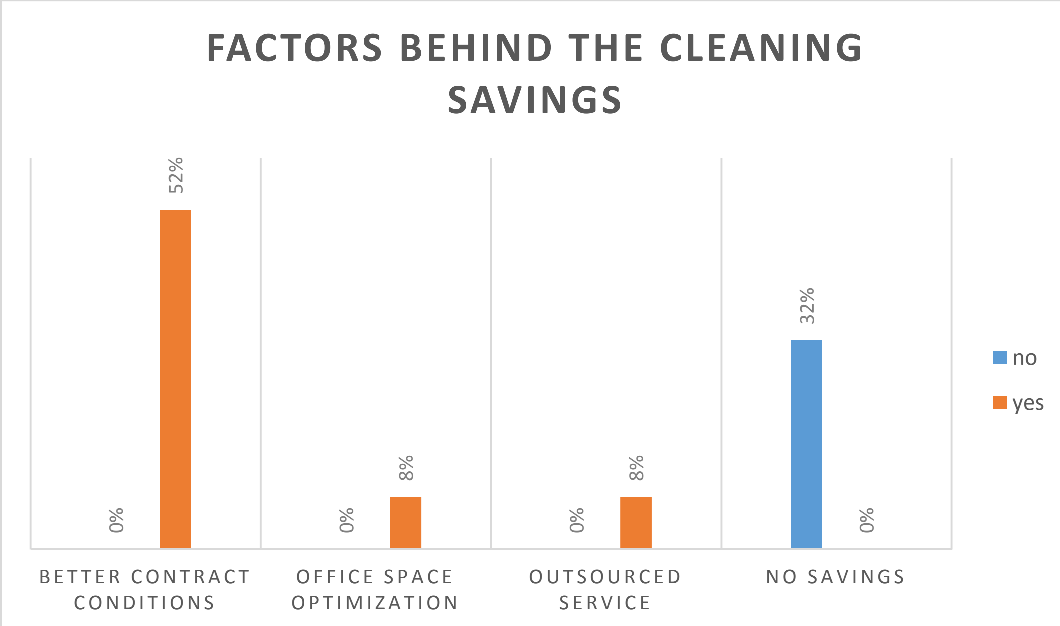


*Figure 34 - % of the Companies that achieved cleaning savings and the factors behind*

Seven out of ten Companies succeeded to achieve cleaning costs savings through:

- Better contract conditions agreed – 52%
- Optimization in the office space – 8 %
- Outsourced cleaning services – 8 %

Three out of ten Companies were not able to cut the cleaning costs.

### 4.9.6. Savings in the area of administration

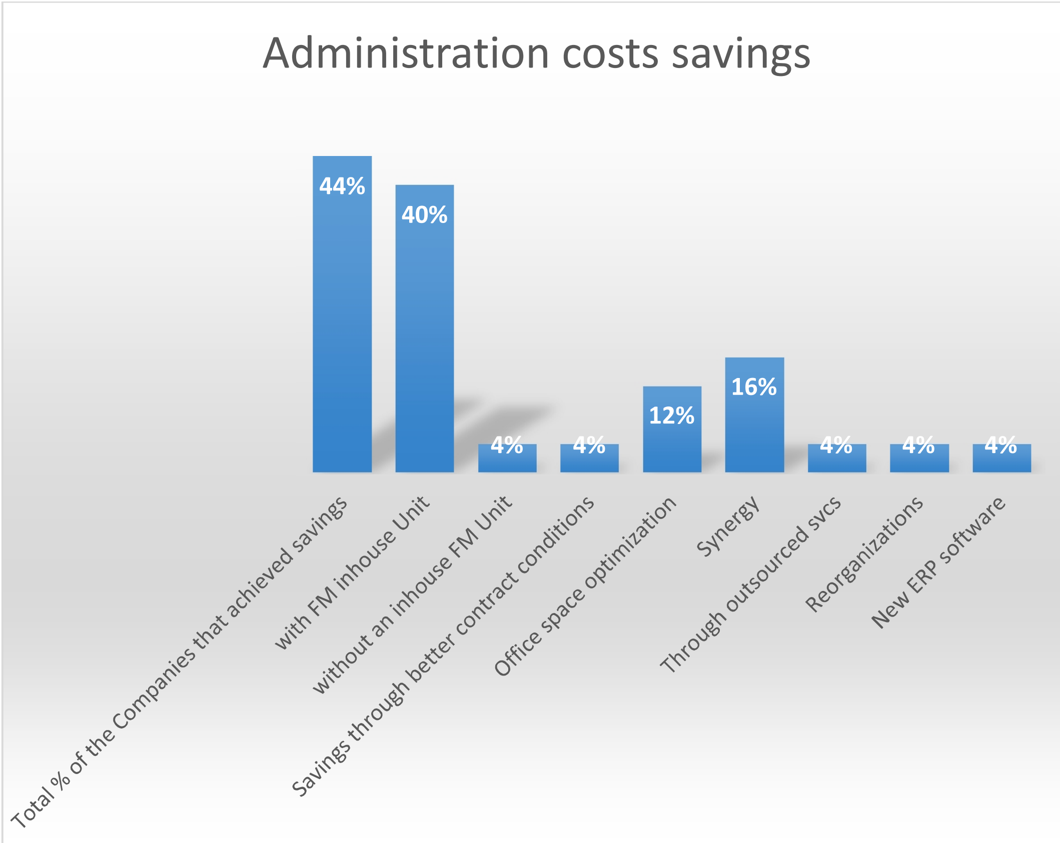


*Figure 35 - % of the Companies with / without an in-house FM Unit who achieved savings in the administration area - Survey Findings - Bulgaria 2017*

| Factors behind the administration's cost savings | Achieved administration costs savings | | |
|---|---|---|---|
| **How the savings were achieved:** | **no** | **yes** | **Grand Total** |
| synergy | 0% | 16% | 16% |
| space optimization | 0% | 12% | 12% |
| better contract conditions | 0% | 4% | 4% |
| new ERP software | 0% | 4% | 4% |
| outsourced svcs | 0% | 4% | 4% |
| reorganizations | 0% | 4% | 4% |
| no savings | 56% | 0% | 56% |
| **Grand Total** | **56%** | **44%** | **100%** |

*Table 9 - Factors behind the administration's cost savings*

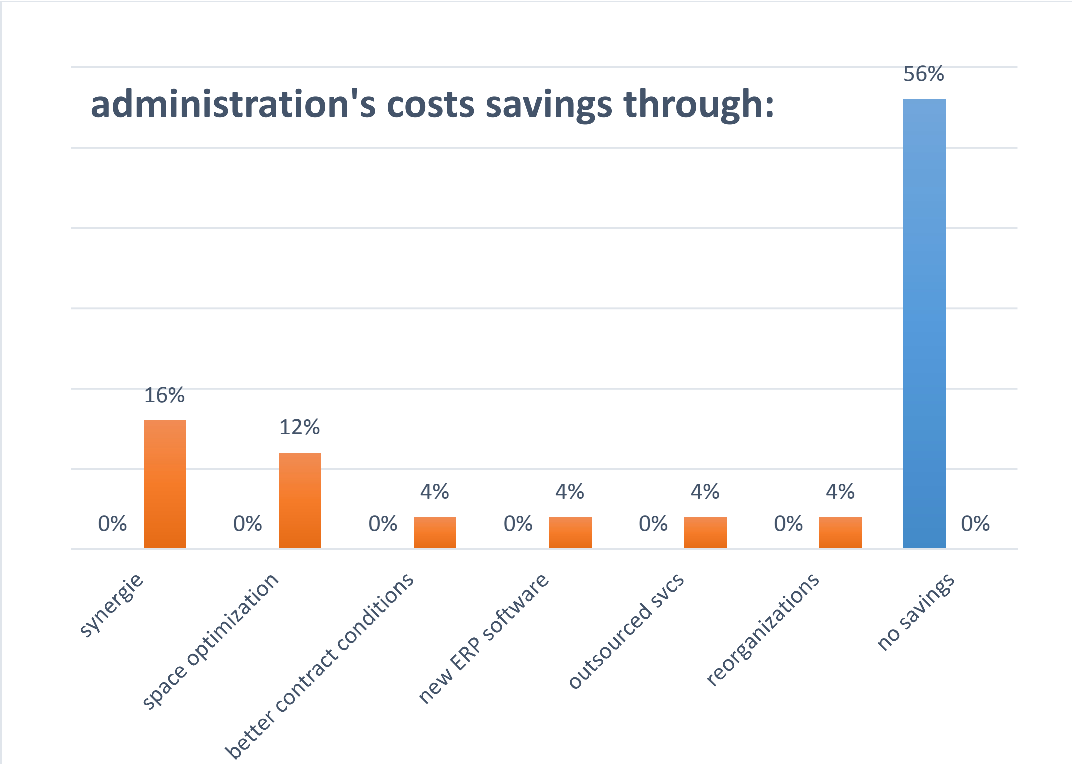


*Figure 36- Factors behind the administration's cost savings*

- Four out of ten Companies have achieved administration costs savings through utilization of synergies: 16%, office space optimization: 12%, better contracts' conditions: 4%, outsourced svcs: 4%, reorganizations: 4% and new ERP software implementation: 4%.

### 4.9.7. Yearly savings of Companies with their own in-house FM Department

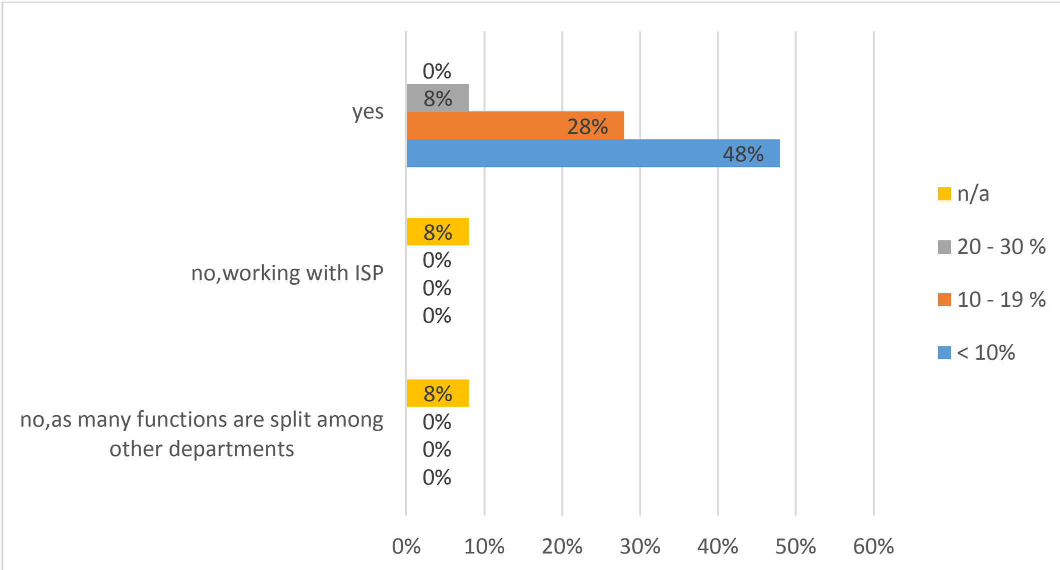


*Figure 37 - Saving of Companies with an in-house FM Unit - Bulgaria Survey 2017, *ISP – Integrated Services Provider*

- 48 % of the Respondents having their in-house FM Department achieved savings below the 10% of the expenses versus the previous year.
- 28% of the Respondents succeeded to save between 10-20 % of the FM costs.
- 8% of the Companies were able to save between 20-30 % of their FM expenses.

### 4.9.8. Yearly savings of Companies with their own in-house FM Department. Comparison of data (Austria, Romania, Spain and Bulgaria)

| Country | no savings | < 10 % | 10%-19% | 20%-29% | 30%-39% | 40%-50% |
|---|---|---|---|---|---|---|
| Austria 2005 | 4% | 17% | 57% | 9% | 7% | 6% |
| Austria 2006 | 11% | 20% | 35% | 24% | 6% | 4% |
| Austria 2007 | 4% | 17% | 56% | 9% | 7% | 7% |
| Austria 2009 | 15% | 19% | 35% | 16% | 15% | |
| Austria 2010 | 4% | 15% | 31% | 35% | 11% | 4% |
| Austria 2011 | 0% | 24% | 39% | 24% | 8% | |
| Austria 2012 | 4% | 44% | 30% | 18% | 4% | |
| Romania 2013 | 0% | 0% | 50% | 25% | 25% | |
| Spain 2014 | | 17% | 56% | 28% | | |
| Bulgaria 2017 | | 48% | 28% | 8% | | |

*Table 10 - Savings of Companies with their own in-house FM Units - Comparison Austria, Romania, Spain and Bulgaria (Prof. Alexander Redlein, TU Wien, in cooperation with Real Estate User Group (REUG), TU Wien, A1_Skriptum_Redlein-Introduction) (Alex Octavio Bayon, 06/2014)*

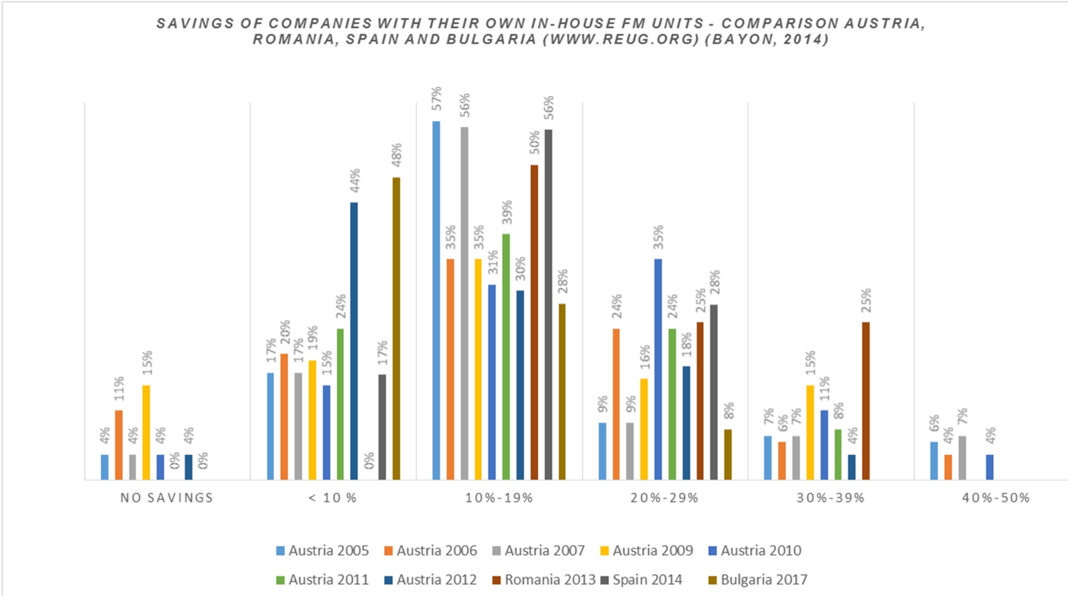


*Figure 38 - Savings of Companies with their own in-house FM Units - Comparison Austria, Romania, Spain and Bulgaria (Prof. Alexander Redlein, TU Wien, in cooperation with Real Estate User Group (REUG), TU Wien, A1_Skriptum_Redlein-Introduction) (Alex Octavio Bayon, 06/2014)*

The above figure shows the most companies save between 10-30 % through the functioning of their in-house FM Department.

### 4.10. Cost drivers – Survey findings Bulgaria 2017 and compared to Austria, Romania and Spain

"Cost drivers require differentiated cost planning and cost control. They are measures of cost causation and resource use and output". (Leidig, G., 2004)

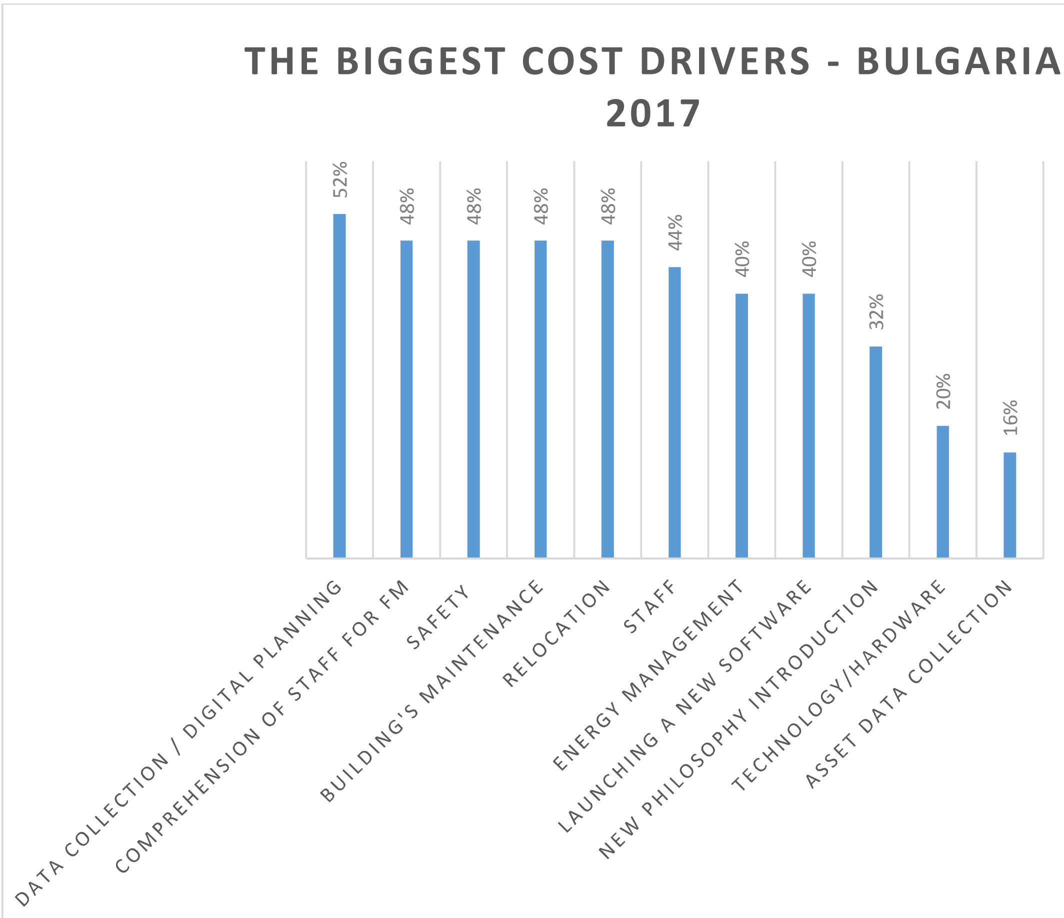


*Figure 39 - The biggest cost drivers - Survey findings Bulgaria 2017*

| Problems/Cost | problem | problem, but solved with the proper investment | cost driver | problem&cost driver | not a problem |
|---|---|---|---|---|---|
| New philosophy in | 56% | 4% | 32% | 4% | 4% |
| Comprehension of staff for FM | 44% | 0% | 48% | | 8% |
| energy management | | | 40% | | 60% |
| assets data collect | 24% | | 16% | 60% | |
| Staff is | 20% | 4% | 44% | | 32% |
| Safety / higher saf | 16% | | 48% | 12% | 24% |
| Building's maintena | 12% | 36% | 48% | | 4% |
| Launching a new s | 12% | 0% | 40% | 48% | 0% |
| data collection/dig | 12% | | 52% | 36% | |
| relocation is | 8% | | 48% | 36% | 8% |
| Technology/Hardw | 4% | | 20% | | 76% |

*Table 11 - Detailed ranking of pure cost drivers, problems, problems and cost drivers the Respondents are faced with*

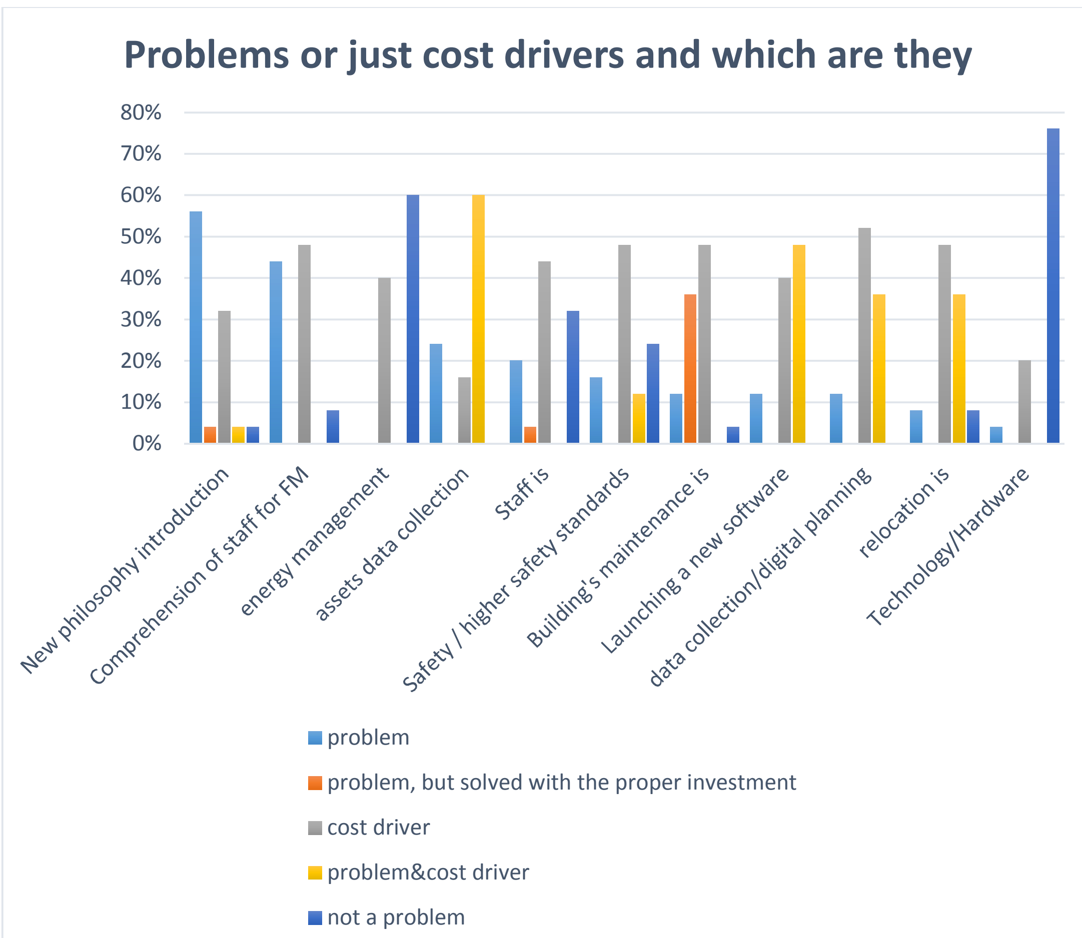


*Figure 40- Problems or just cost drivers and which are they exactly*

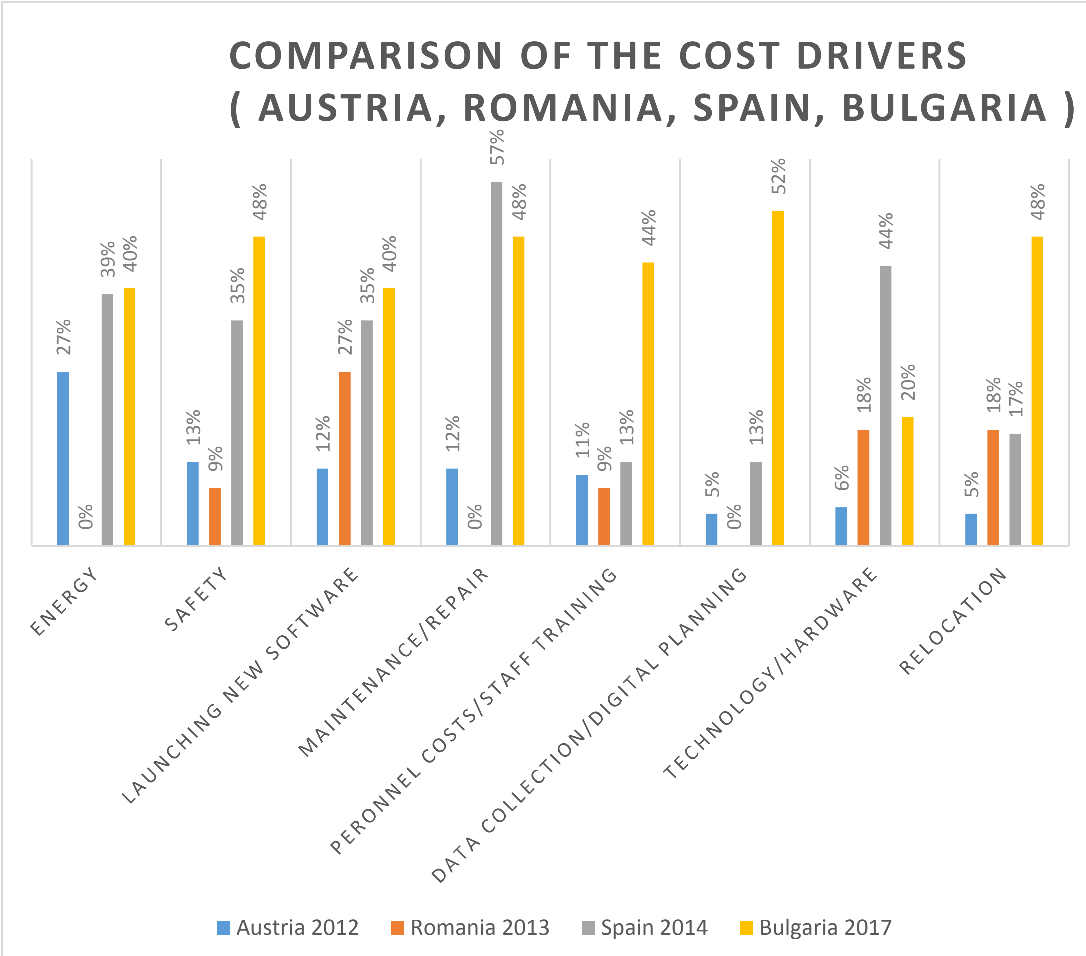


*Figure 41 - Comparison of the cost drivers in Austria, Romania, Spain and Bulgaria; (Prof. Alexander Redlein, TU Wien, in cooperation with Real Estate User Group (REUG), TU Wien, A1_Skriptum_Redlein-Introduction) (Alex Octavio Bayon, 06/2014)*

## 4.11. The significant problems, related to the FM services that the Companies are faced with

| Technical faults | an hour | less than 24 hours | up to 1 week | up to 1 mont | n/a |
|---|---|---|---|---|---|
| Power failures | 56% | 36% | 4% | | 4% |
| HVAC's faults fixed within | 32% | 44% | 16% | 8% | |
| Elevators | 28% | 64% | 4% | | 4% |
| IT faults | 16% | 64% | 12% | | 8% |
| Flooding | 16% | 24% | 24% | 4% | 32% |
| Thefts | 12% | 12% | 8% | 4% | 64% |
| Fire | 12% | 8% | | | 80% |

*Table 12 - The significant problems, related to the FM services that the Companies are faced with - Survey findings Bulgaria 2017*

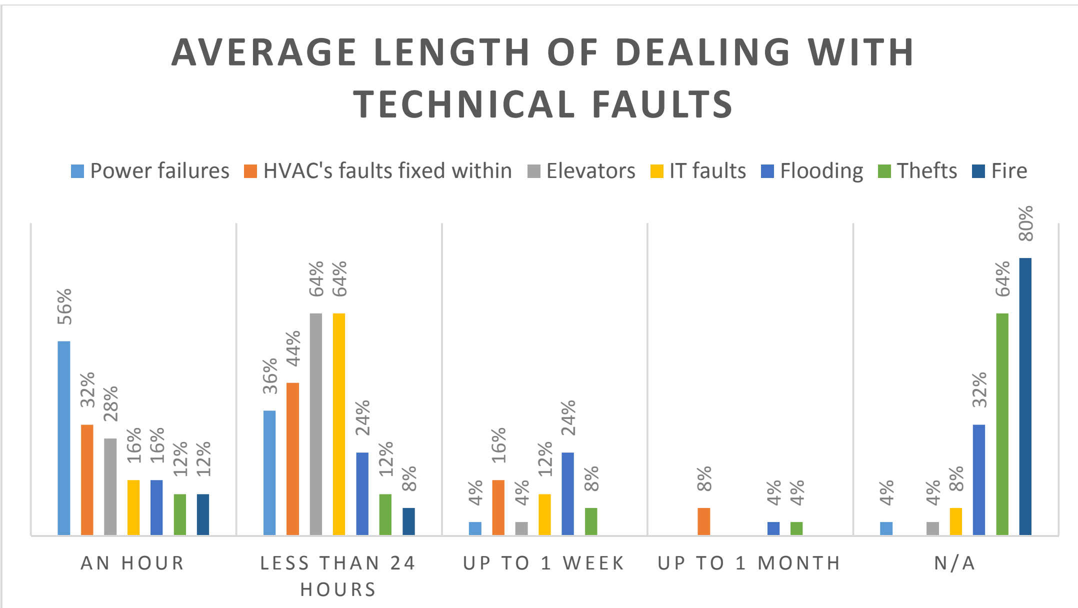


*Figure 42 - Technical Problems, identified by the Companies and the average time for their removal – Survey Findings Bulgaria 2017*

### 4.12. Benchmarking pilot data gathering Bulgaria 2017 and compared to data for Germany 2015

Many of the participants in this survey showed keen interest into finding possibilities of achieving a "better value" for their facilities services. They were eager to implement any of the best working Facility Management practices, applied already from similar companies. Thus some of the Respondents provided data over their energy and maintenance and operating costs on an annual basis and contributed into this Survey's trial for pilot benchmarking.

| Type of the property | Energy consumption ( KWH/A/m2) in Bulgaria | Energy consumption ( KWH/A/m2) in Germany | Difference ( BG/Germany) |
|---|---|---|---|
| Manufacturing Companies | 160 | | |
| Malls | 131 | 60 | 118% |
| Mixed usage properties | 105 | | |
| Offices | 88 | 50 | 76% |
| Commercial & offices | 54 | | |

*Table 13 - Benchmarking Energy costs - Survey Findings Bulgaria 2017 / Germany 2015 (www.facility-manager.de)*

The energy costs for Bulgaria were compared with data provided for Germany. (Benchmarks im Facility Management,www.facility-manager.de, 11/2015, accessed 08/09/2017)

Some of the respondents provided data about their cleaning costs as follows:

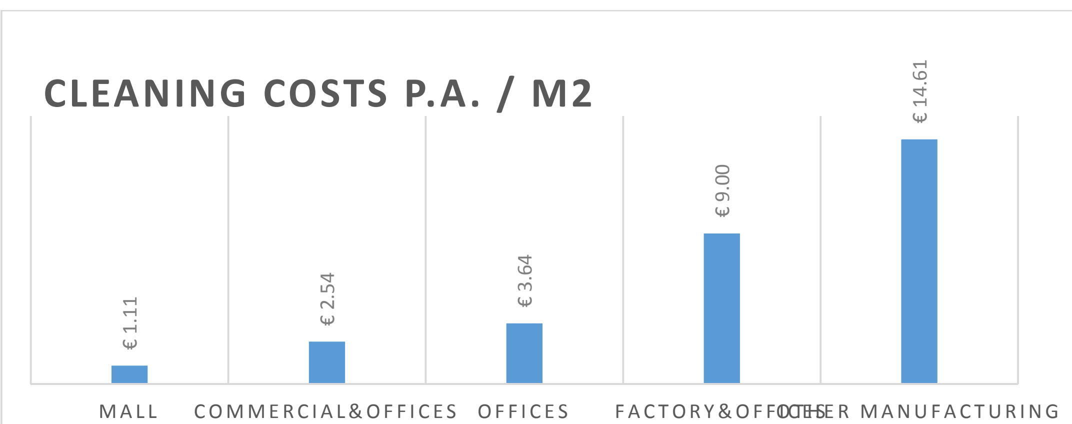


*Figure 43 - Benchmarking cleaning costs Bulgaria 2017 - Survey findings*

## 4.13. OUTSOURCING – Survey findings Bulgaria 2017 and compared to Austria, Romania and Spain

### 4.13.1. Outsourcing percentage in Bulgaria, Austria, Romania and Spain

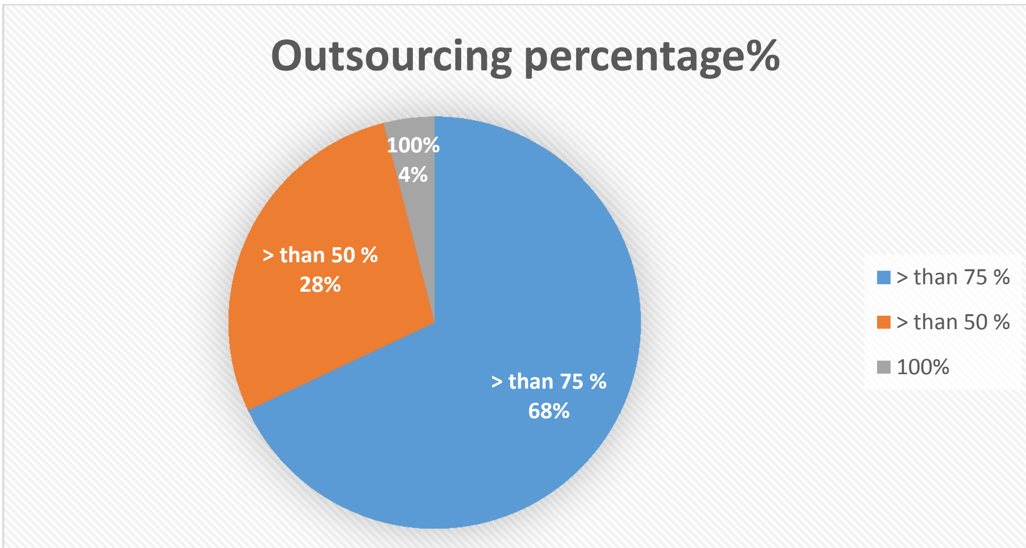


*Figure 44 - Outsourcing % Survey Findings Bulgaria 2017*

The most commonly way the Facilities Services are organized in Bulgaria are through a mixture of an in-house FM Department and technical personnel and in addition subcontracting services to external FM Providers (FMPs).

It is not a common practice for the Bulgarian Companies to work with an Integrated FM Services Suppliers / Providers (FMSSps/ FMSPs).

- 68 % of the Respondents outsource more than 75 % of the Facilities Services
- 28% of the Respondents outsource more than 50 % of the FM Svcs
- 4% of the Respondents work with an Integrated Facility Management Provider

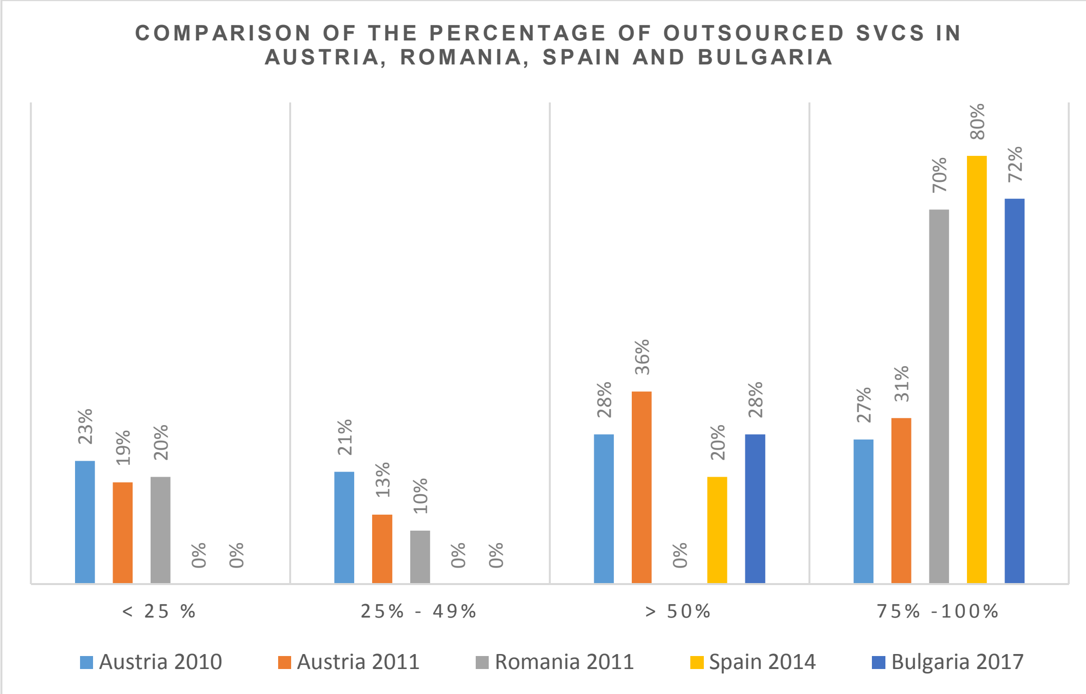


*Figure 45 - Percentage of the outsourced Svcs in Bulgaria and in comparison with Austria, Romania and Spain (Prof. Alexander Redlein, TU Wien, in cooperation with Real Estate User Group (REUG), TU Wien, A1_Skriptum_Redlein-Introduction, 22.03.2015) (Alex Octavio Bayon, 06/2014)*

Figure 41 shows a clear trend for outsourcing of more than 75 % of the Facilities Services in Romania, Spain and Bulgaria (all emerging markets).

The Respondents for Bulgaria 2017 Survey all answered that there was not a single service that was previously outsourced and after brought back in house.

### 4.13.2. Which are the outsourced services in Bulgaria and what the Respondents believe about their quality

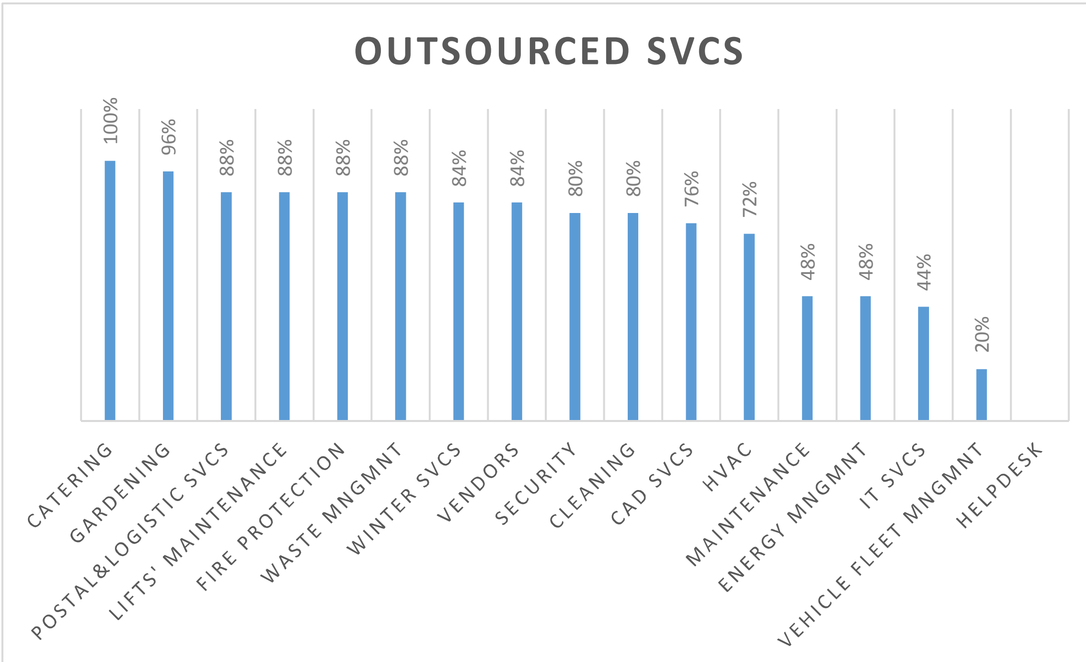


*Figure 46 - Areas of outsourcing - Survey Findings Bulgaria 2017*

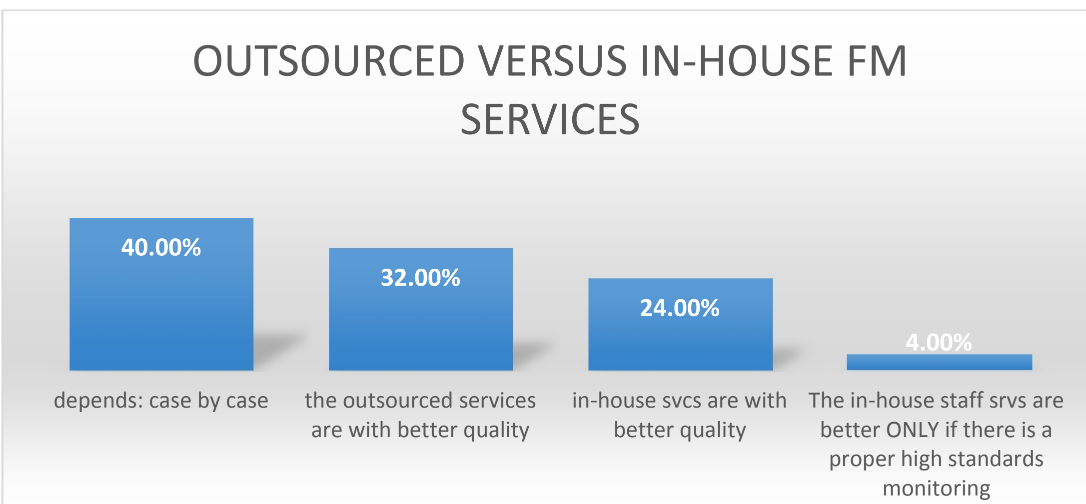


*Figure 47 - The quality of the outsourced FM Svcs vs the In-house svcs - Survey Findings Bulgaria 2017*

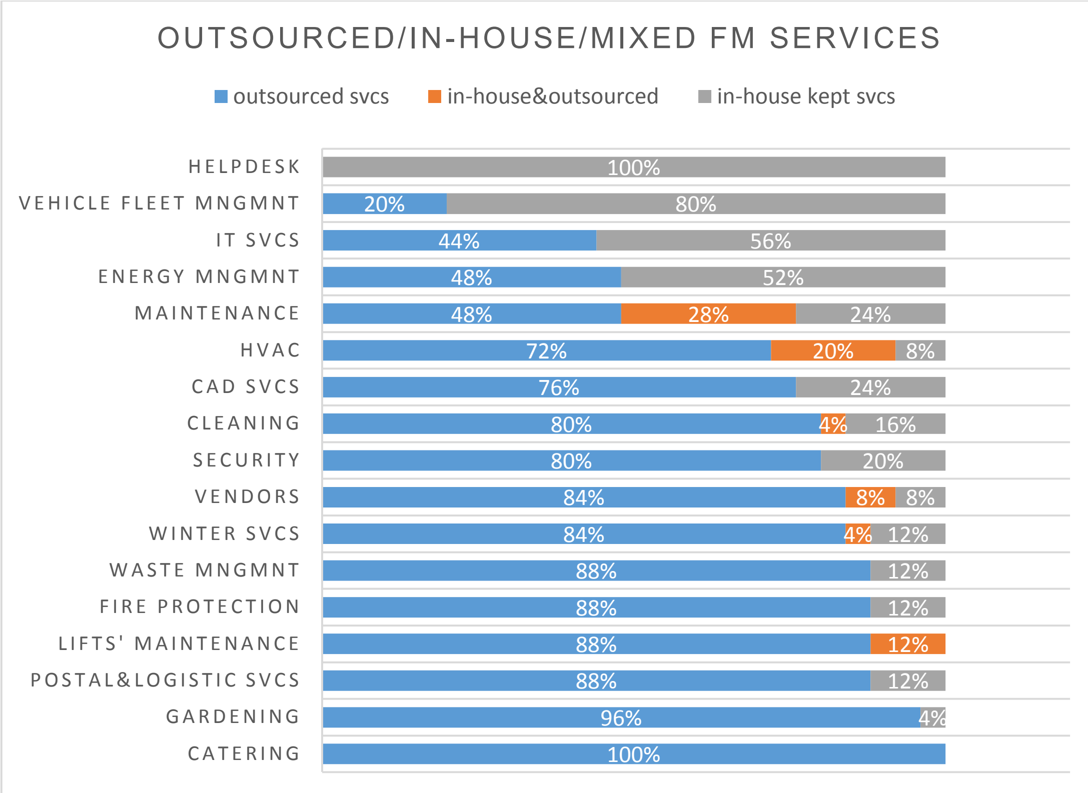


*Figure 48-The FM Services Bundle: Outsourced, In-House and Outsourced and in-house Svcs - Survey Findings Bulgaria 2017*

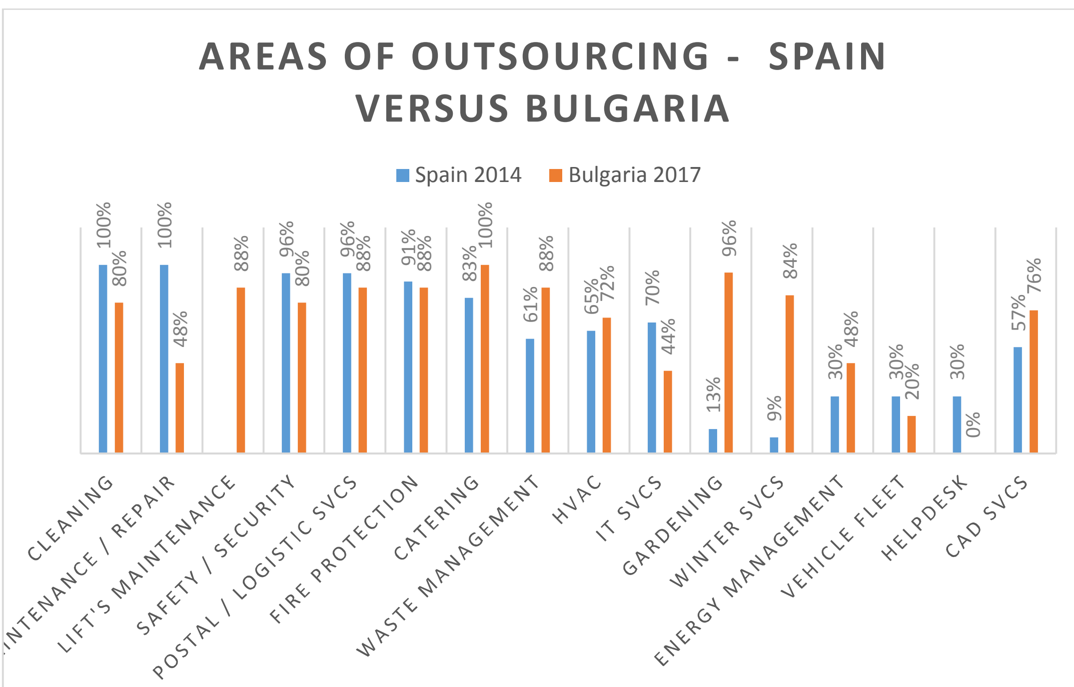


*Figure 49- Areas of outsourcing - Spain versus Bulgaria (Alex Octavio Bayon, 06/2014)*

### 4.13.3. How the better Facilities Services Providers (FSPs) are chosen? Which are the top reasons when subcontracting? Survey Findings Bulgaria 2017 and compared to Spain.

From all the pictures below it's obvious that Factor Price is not the No.1 determining factor:

The Bulgarian Respondents place the Factor "Price" on the 4th place (after 1. the importance of the Price/Quality Ratio, after 2. the FMSPs Know-How and after 3. the good communication / feedback ratio).

The Spanish Respondents put the Factor Price even at position No.6 (after 1. the importance of the Price/Quality Ratio, after 2. the Active Service Provision Factor, 3. the FMSPs flexibility, 4. Quality and 5. The Company's Know-How. )

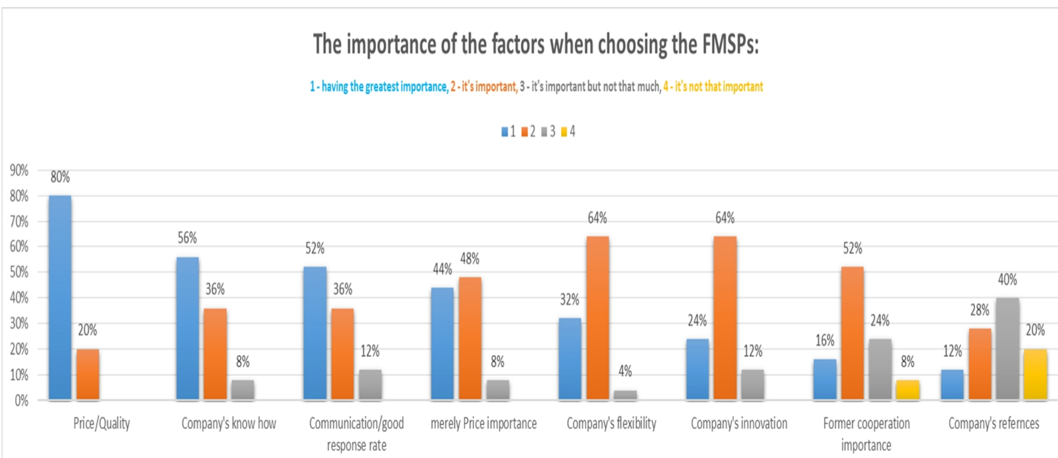


*Figure 50 - The most important factors when choosing a FMSPs - Survey Findings Bulgaria 2017*

| Factor's importance | Country | Having the greatest important (1) | It's important (2) | It's important, but not that much (3) | It's not that important (4) | Unimportant factor (5) |
|---|---|---|---|---|---|---|
| Price/Quality | Bulgaria | 80% | 20% | | | |
| Price/Quality | Spain | 88% | 6% | | | 6% |
| Company's know how | Bulgaria | 56% | 36% | 8% | | |
| Company's know how | Spain | 47% | 43% | 5% | 5% | |
| Communication/good response rate | Bulgaria | 52% | 36% | 12% | | |
| Communication/good response rate | Spain | 33% | 60% | 7% | | |
| Merely Price importance | Bulgaria | 44% | 48% | 8% | | |
| Merely Price importance | Spain | 43% | 38% | 14% | 5% | |
| Company's flexibility | Bulgaria | 32% | 64% | 4% | | |
| Company's flexibility | Spain | 58% | 17% | 17% | 8% | |
| Company's innovation | Bulgaria | 24% | 64% | 12% | | |
| Company's innovation | Spain | 30% | 30% | 40% | | |
| Former cooperation importance | Bulgaria | 16% | 52% | 24% | 8% | |
| Former cooperation importance | Spain | 22% | 56% | 11% | 11% | |
| Company's references | Bulgaria | 12% | 28% | 40% | 20% | |
| Company's references | Spain | 29% | 29% | 42% | | |

*Table 14- The Top Factors when choosing FMSPs - Bulgaria vs Spain (Alex Octavio Bayon, 06/2014)*

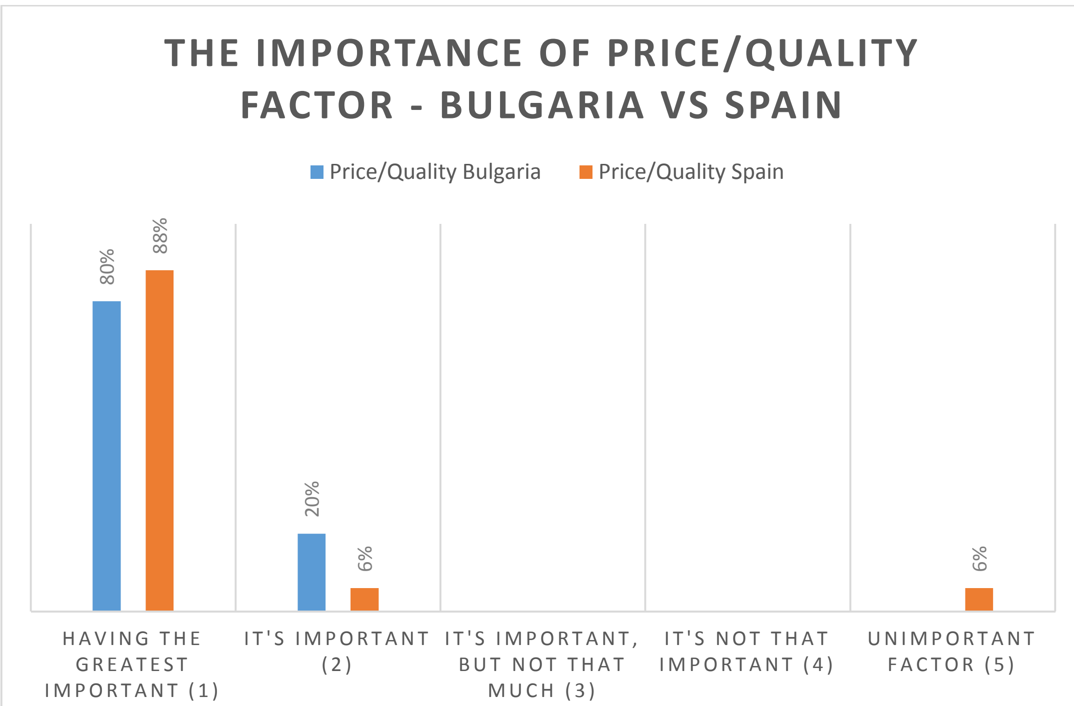


*Figure 51 - The Importance of Price/Quality Factor - Bulgaria vs Spain*

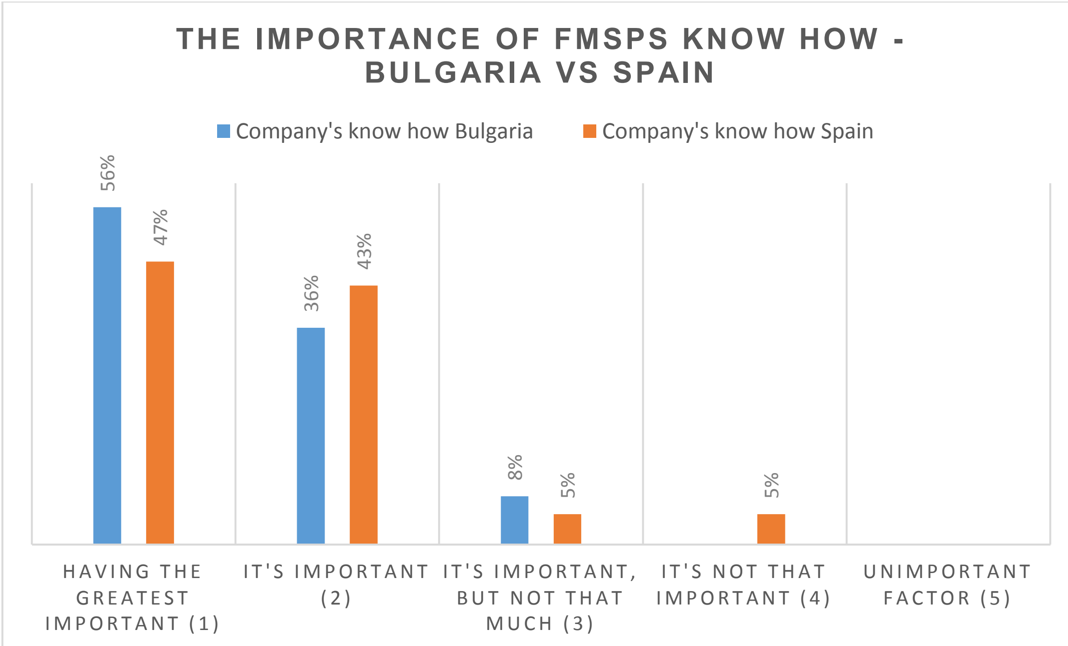


*Figure 52 - The Importance of the Facilities Management Service Providers' Know How - Bulgaria vs Spain*

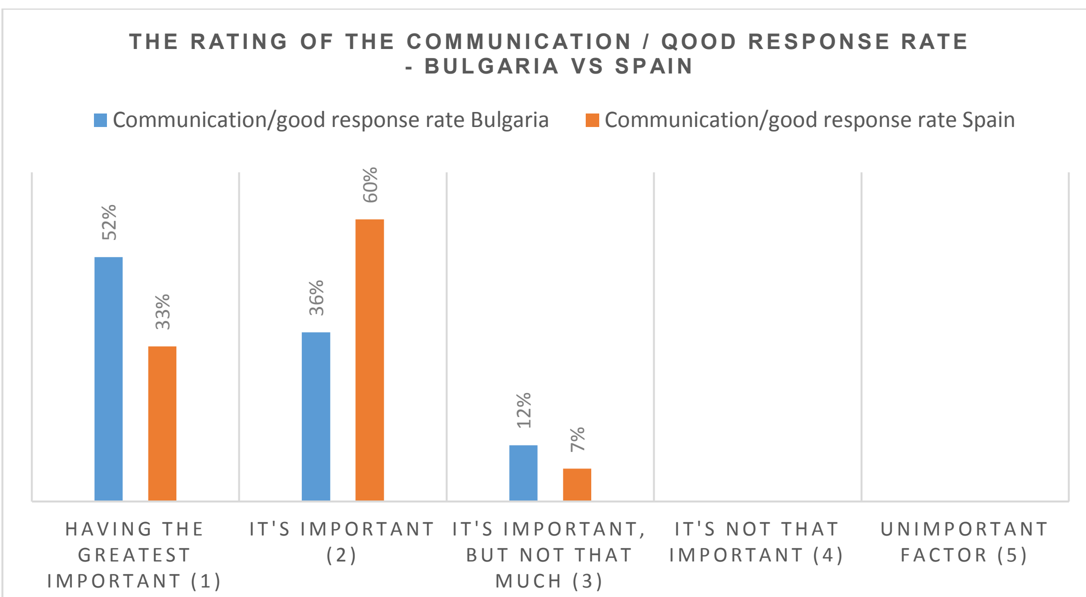


*Figure 53 - The Rating of the Communication / Good Response Rate - Bulgaria vs Spain*

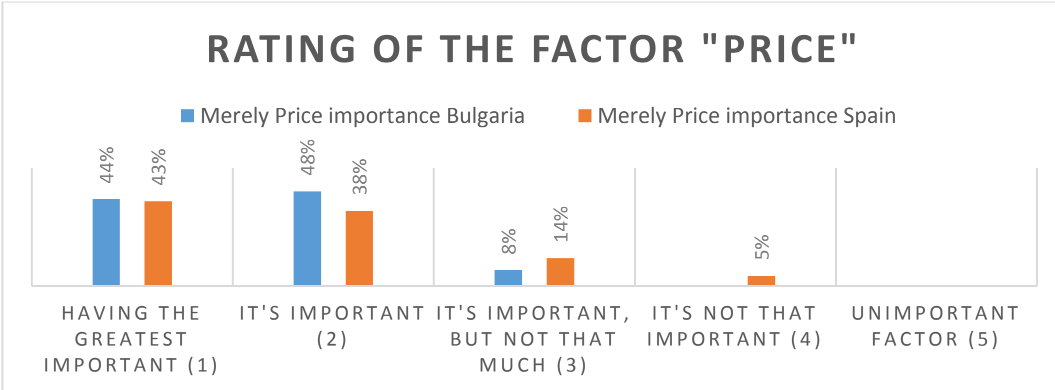


*Figure 54 - Rating of the Factor "Price" - Comparison Bulgaria vs Spain*

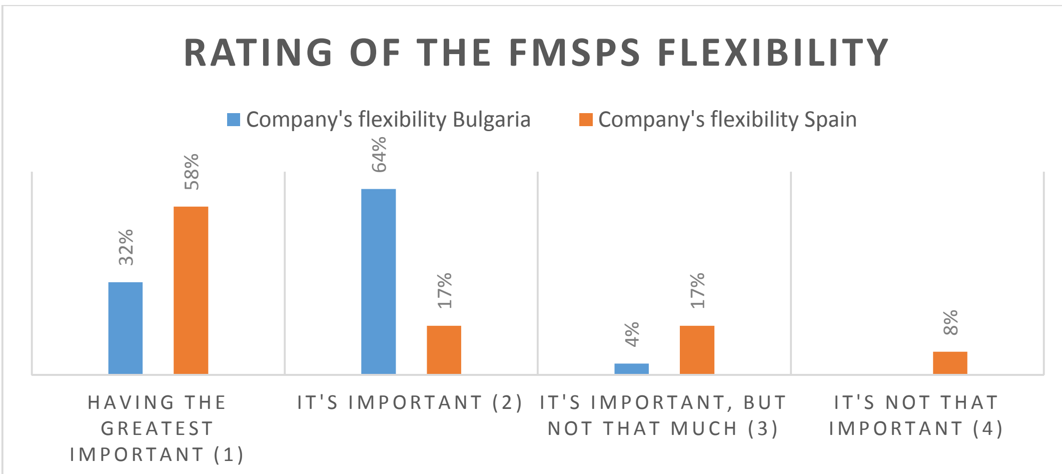


*Figure 55 - rating of the Facility Management Suppliers' Flexibility - Bulgaria vs Spain*

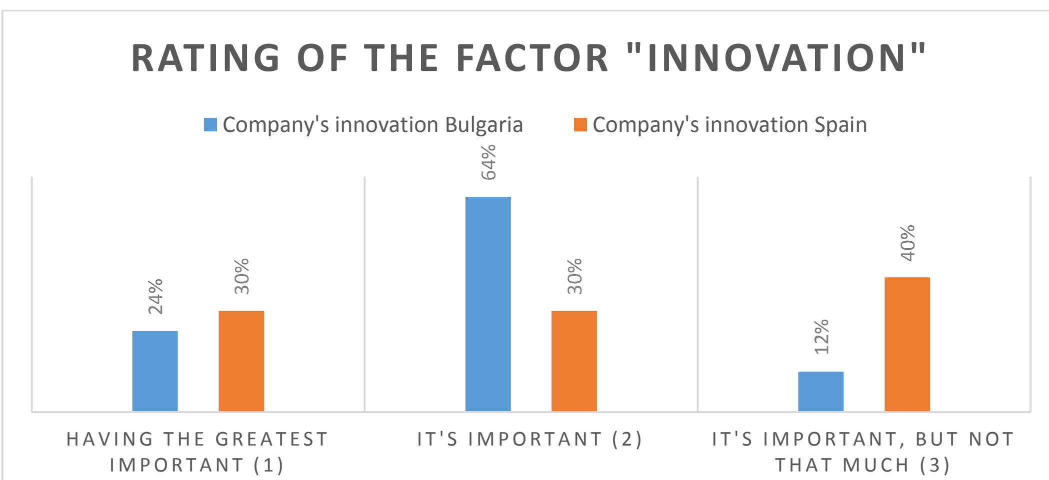


*Figure 56 - rating of the Factor "Innovation" - Bulgaria vs Spain*

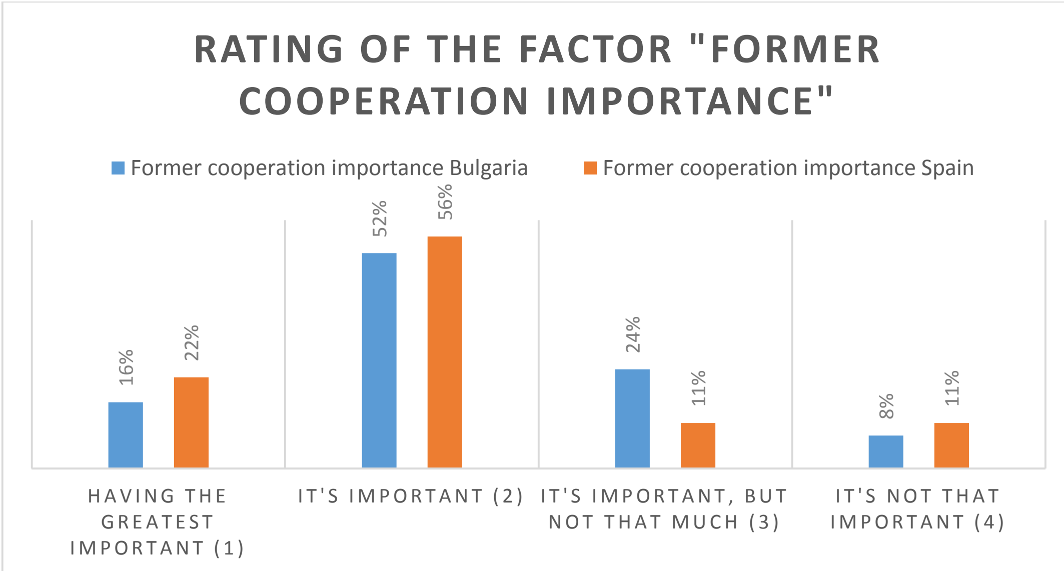


*Figure 57 - How important is the Factor "Former Cooperation Importance" - Bulgaria vs Spain*

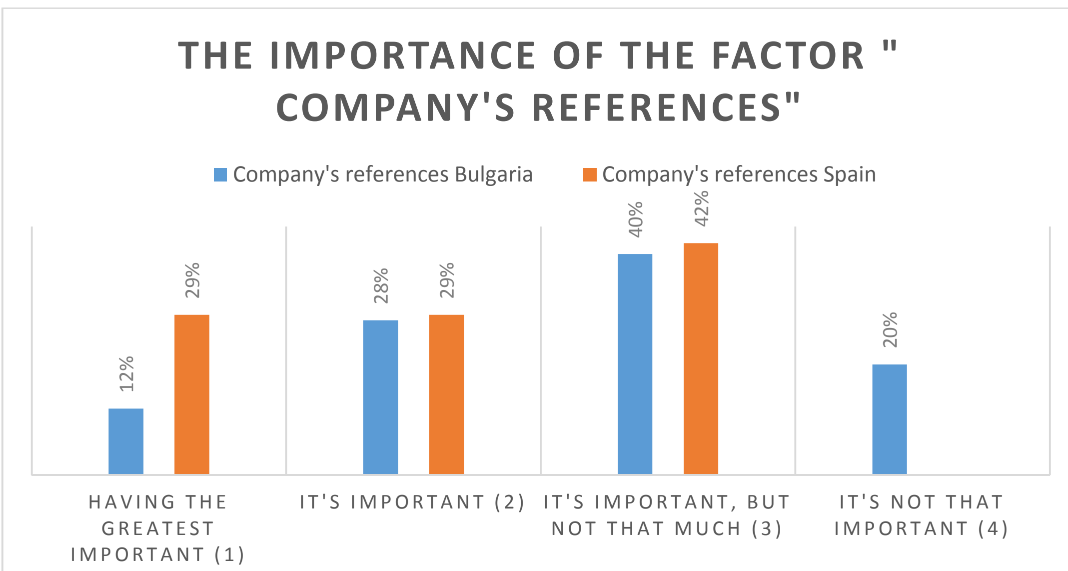


*Figure 58 - The Importance of the Factor "Company's References" - Bulgaria vs Spain*

4.13.4. The number of external Facilities Management Service Providers (FMSPs) the Bulgarian Companies work with (and in comparison with Austria, Romania and Spain):

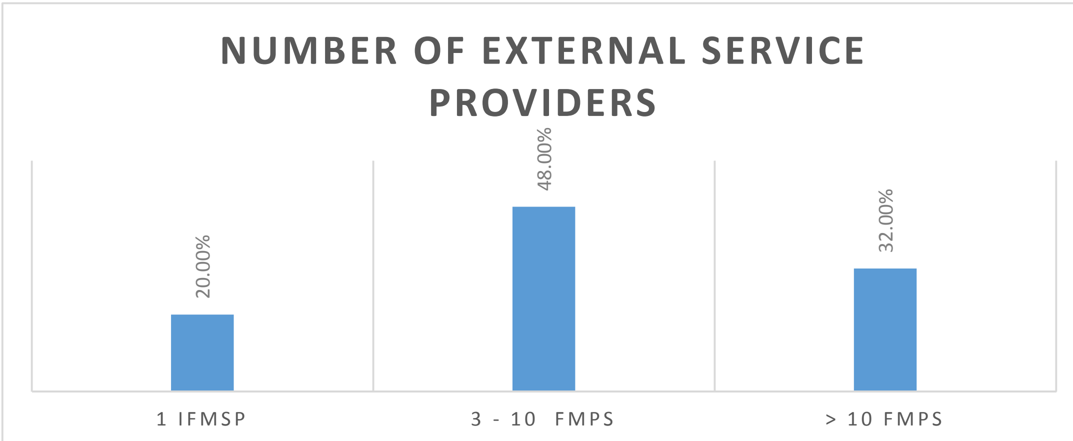


*Figure 59 - Number of external service providers - Survey findings Bulgaria 2017*

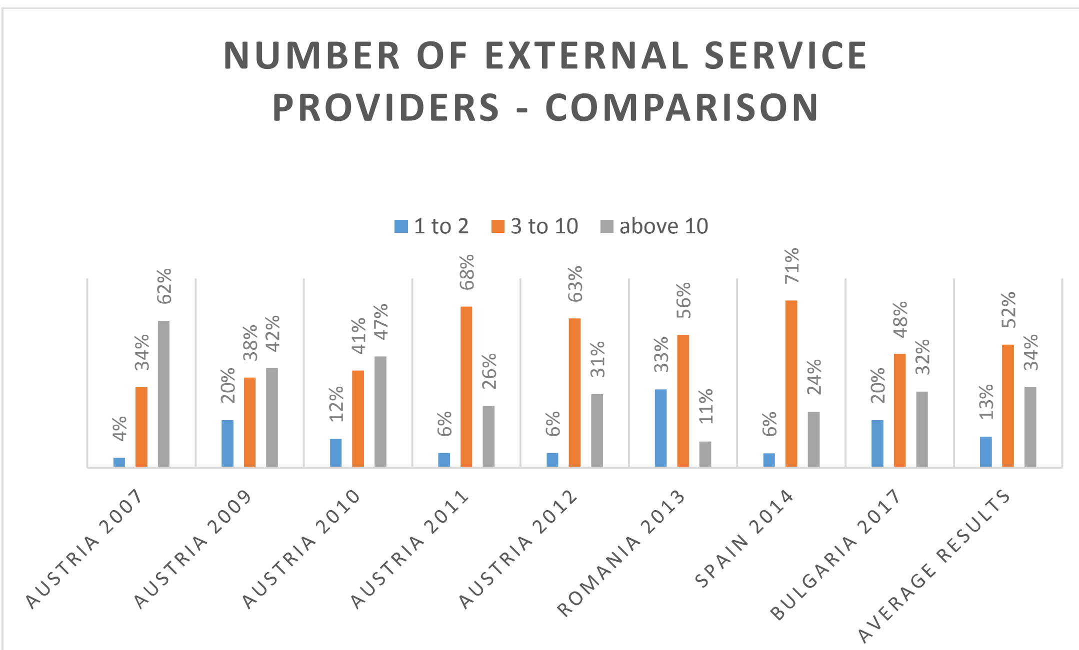


*Figure 60 - Number of external Facilities Management Service Providers - Comparison (Bulgaria, Austria, Romania and Spain)*

The average number of the external FMSPs is between 3 to 10, both for the Bulgarians surveyed Companies ( 48 % of the Respondents work with 3 to 10 FMSPs) and for the surveyed Companies in Austria, Romania and Spain (52 % of the Respondents have reported the average number of the FMSPs to be between 3-10).

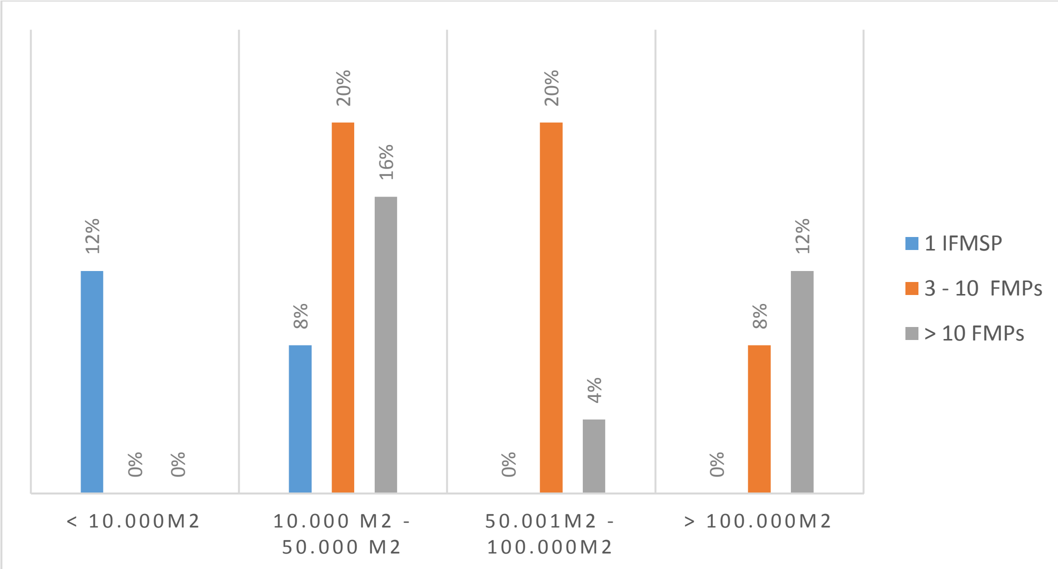


*Figure 61 - Which Companies choose to work with an Integrated Facilities Service Provider - Survey Findings Bulgaria 2017?*

- ✓ The typical size of the surveyed Companies that choose to work with an integrated Facilities Management Service Provider are the small one: managing less than 10.000 m2 and those having properties between 10.000m2 and 50.000 m2.

### 4.13.5. The average contracts' duration – for Bulgaria and in comparison with Austria, Romania and Spain

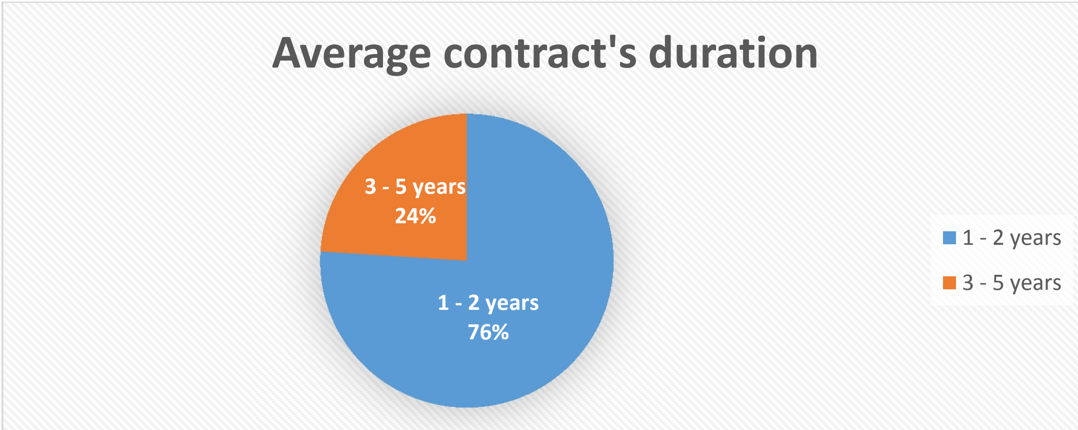


*Figure 62- Contracts' Duration - Survey Findings Bulgaria 2017*

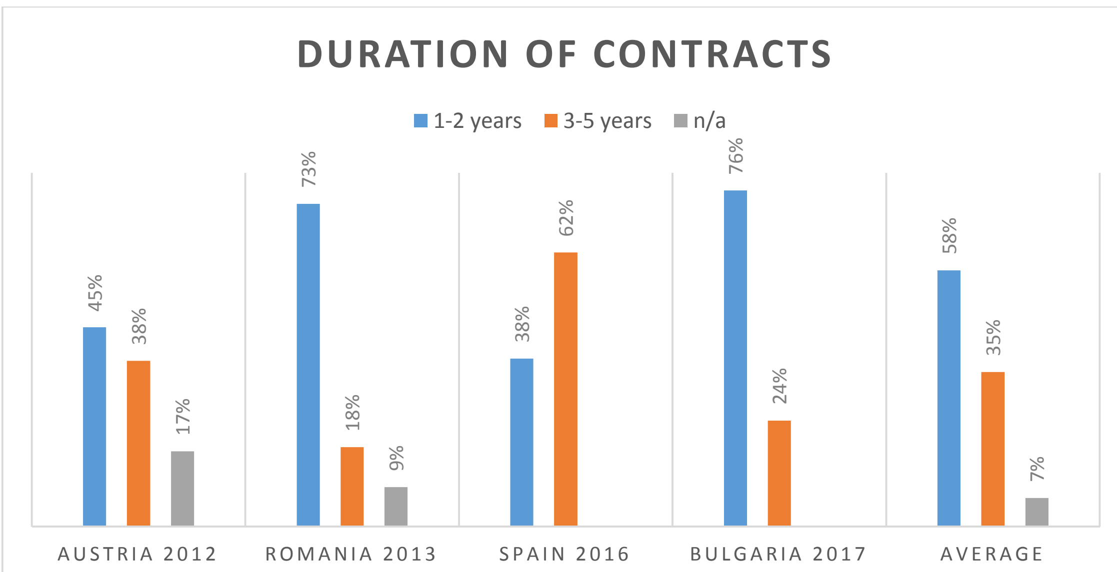


*Figure 63 - Duration of Contracts - Comparison between Austria, Romania, Spain and Bulgaria (Prof. Alexander Redlein, TU Wien, in cooperation with Real Estate User Group (REUG), TU Wien, A1_Skriptum_Redlein-Introduction), (Monnier, 06/2016)*

- ✓ Both for Bulgaria and for the rest of the surveyed countries the most applied contract is the one with a duration of 1 to 2 years (76 % of the Bulgarian Companies work with this contract and 58 % of the surveyed companies from Austria, Romania and Spain prefer the short-term contract.)

### 4.14. The basis over which the Facility Management Service Providers (FMSPs) are paid off – Survey Findings Bulgaria 2017

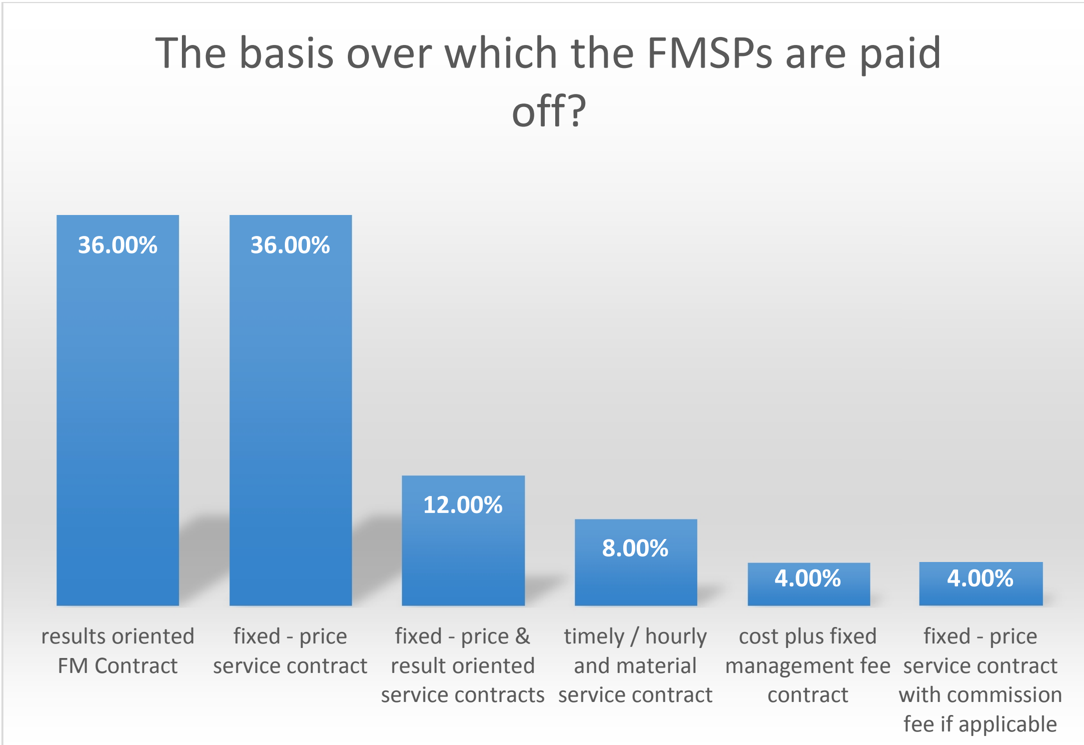


*Figure 64 - The basis over which the FMSPs are paid off - Type of Contract - Survey Findings Bulgaria 2017*

### 4.14.1. Ways the Performance of the FMSPs is measured – Survey Findings 2017 Bulgaria

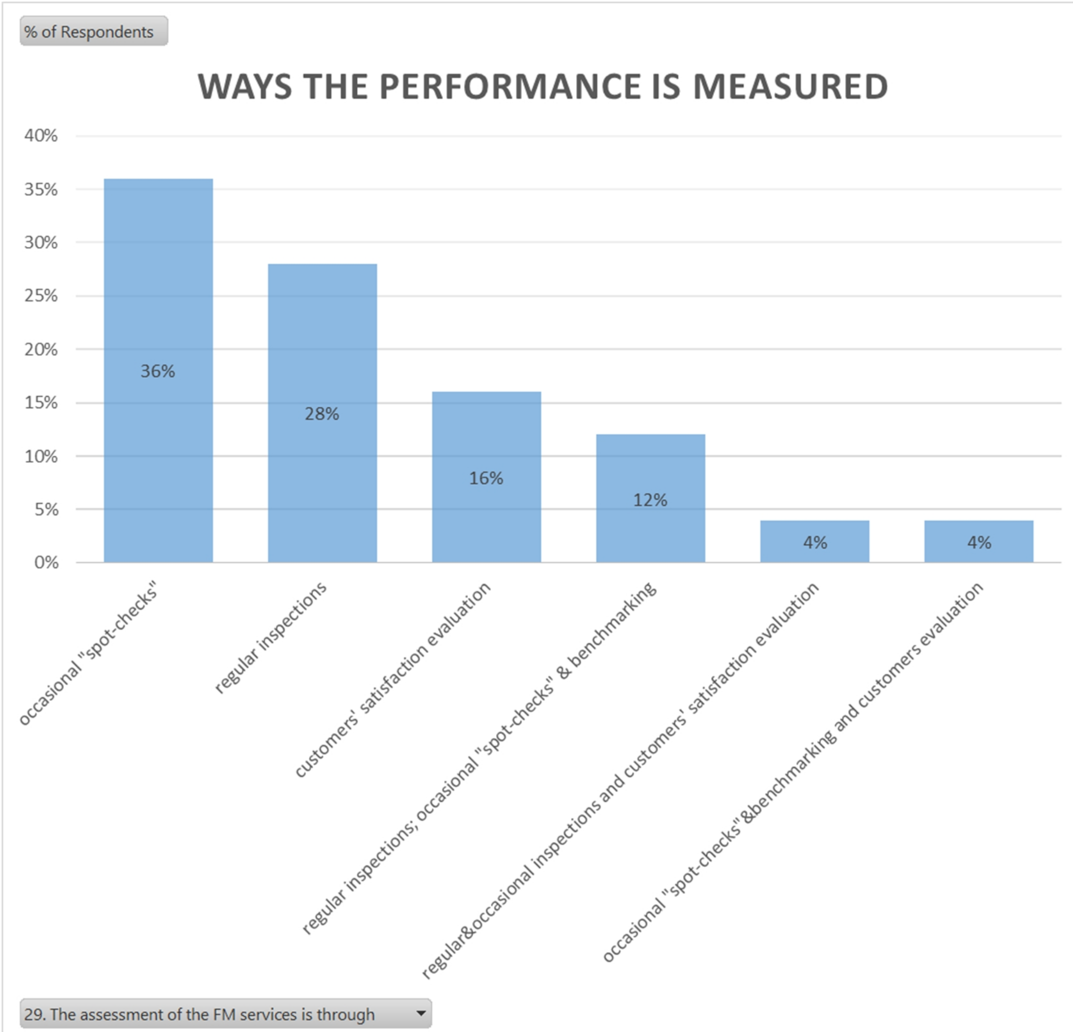


*Figure 65 – Ways into which the Facilities Services are being assessed - Survey Findings Bulgaria 2017*

## 4.15. IT Support – CAFM (Computer Aided Facility Management) and ERP (Enterprise Resource Planning) Software

### 4.15.1. What is a CAFM System / Software?

#### *4.15.1.1. Definition of a CAFM Software according to the GEFMA Richtlinie 400:*

- ✓ "A CAFM Software is a specialized software for the needs of the Facility Management's processes and directly and indirectly related people into those processes"
- ✓ " A CAFM System is an individualized solution that is especially tailored for the specific needs of a Company "

"A CAFM System helps Facility Managers to increase the utilization of space and facilities, reduce moving and reallocations, plan preventative maintenance, efficiently execute reactive maintenance, standardize services, and streamline processes. Ultimately, information from CAFM software allows Managers to improve long-term planning of space, facilities, maintenance, services and budgets to ensure full alignment with the core business needs. " (planonsoftware.com, accessed on 08/09/2017)

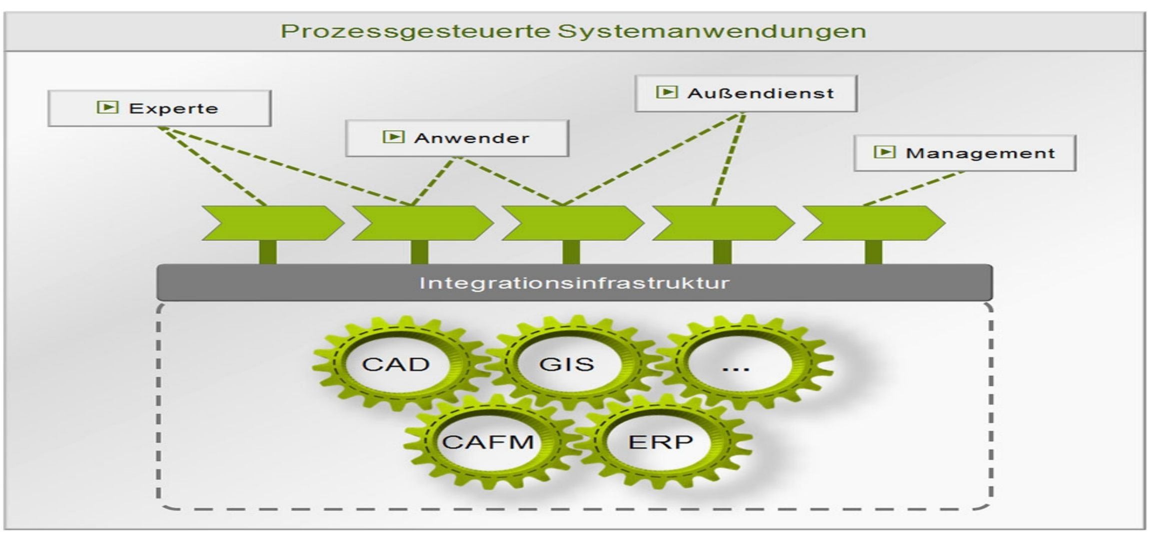


*Figure 66 - (http://www.geo12.com/fileadmin/templates/tol_geo12/img/template_data/Grafiken/CAFM-GIS-CAD-Software-Prozessmanagement-G-2-GEO12.jpg, accessed 08/09/2017)*

The areas which the CAFM products cover (according to the "Facility Manager" Magazine issue "Marktübersicht CAFM-Software 2016, (German Facility Management Association (GEFMA), 2016) are:

**Infrastructural processes like:**

☐ Space management ☐ front – desk
services

☐ Occupancy / booking plan / Belegungsplan ☐ parking spaces and
car park management

☐ Areas that are to be cleaned ☐ parking spaces

☐ Areas of the windows / façade, that are to be cleaned ☐ conference rooms
reservations

☐ Winter services ☐ postal and logistic services

☐ Waste management and disposal ☐ Fire prevention and safety

☐ Keys organizer ☐ Safety and security services

☐ Emergency exit plans

**Technical processes like:**

☐ Management of cables and wires ☐ Storages management

☐ Energy management ☐ History of the detected
faults

☐ Building's maintenance and repairing ☐ Warranties' tracking

☐ Documents management ☐ Equipment and facilities monitoring

**Commercial processes like:**

☐ Real Estate Portfolio Management ☐ Utility costs management

☐ Property Management ☐ Accounting

**Chief Management data monitoring like:**

- ☐ Projektmanagement
- ☐ Contracts management and legal compliances
- ☐ Tasks / To-Do lists
- ☐ Benchmarking
- ☐ Budget management
- ☐ Inventory documentation
- ☐ Documents management

### 4.15.2. Percentage of Companies that use a CAFM system and an ERP software

As seen from the figures below the Companies in Bulgaria are still not convinced what the benefits of a CAFM system implementation are and stay rather reserved toward a CAFM investment ….. Only 8 % of the surveyed Companies (Banks and specialised in FM services Companies) answered that they have an integrated CAFM system.

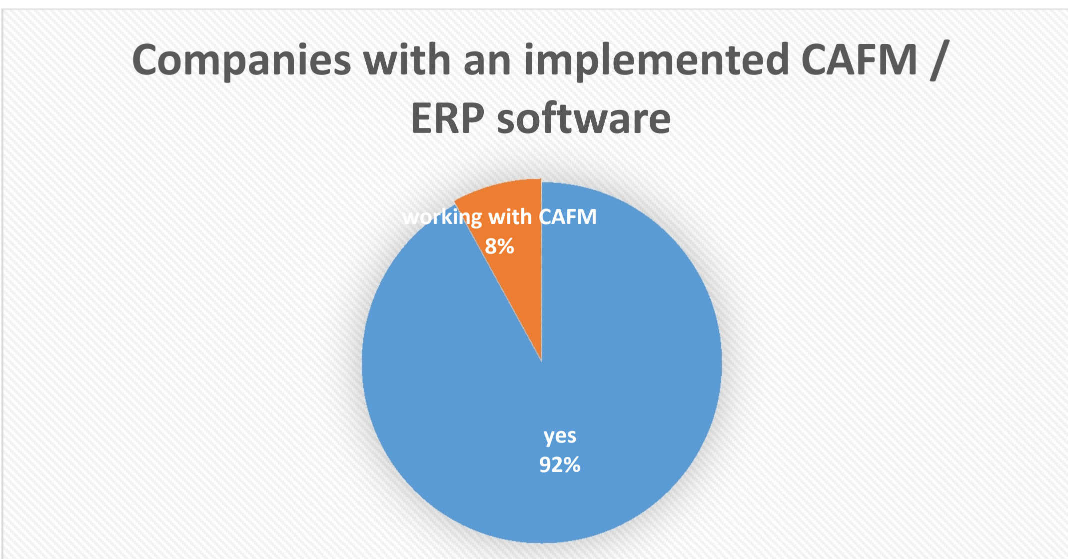


*Figure 67 - Percentage of Companies with an integrated CAFM System - Survey Findings 2017 Bulgaria*

Most of the Bulgarian Companies continue to work with Excel and Access – based solutions.

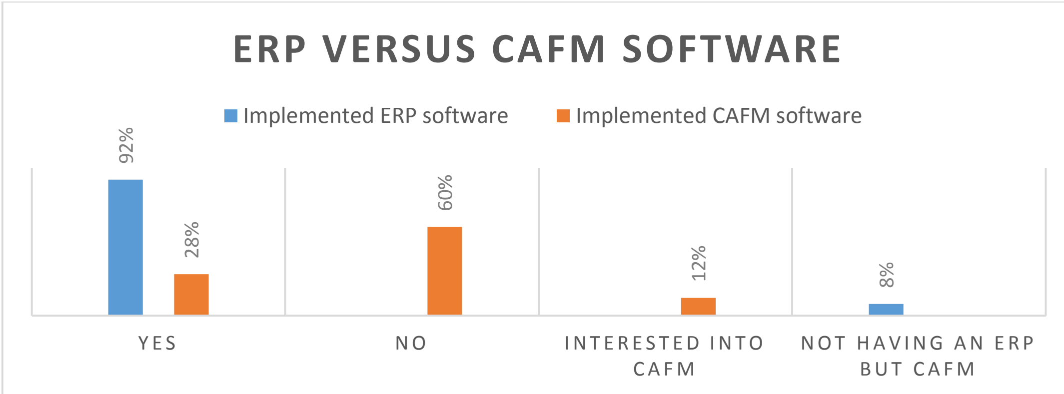


*Figure 68 - Percentage of Companies with an integrated ERP software vs CAFM System - Survey Findings 2017 Bulgaria*

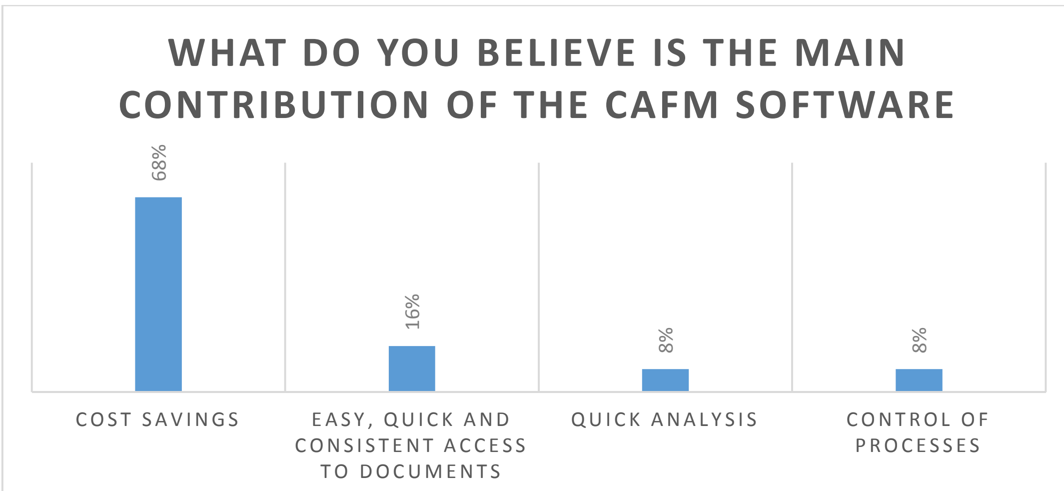


*Figure 69 - What the surveyed Companies believe are the main benefits of using a CAFM system*

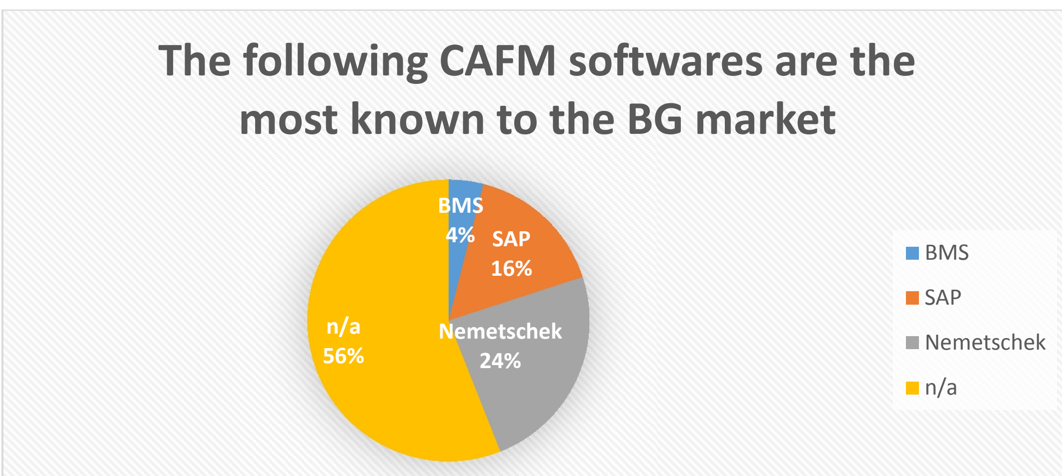


*Figure 70 - CAFM systems that are most known to the Bulgarian market*

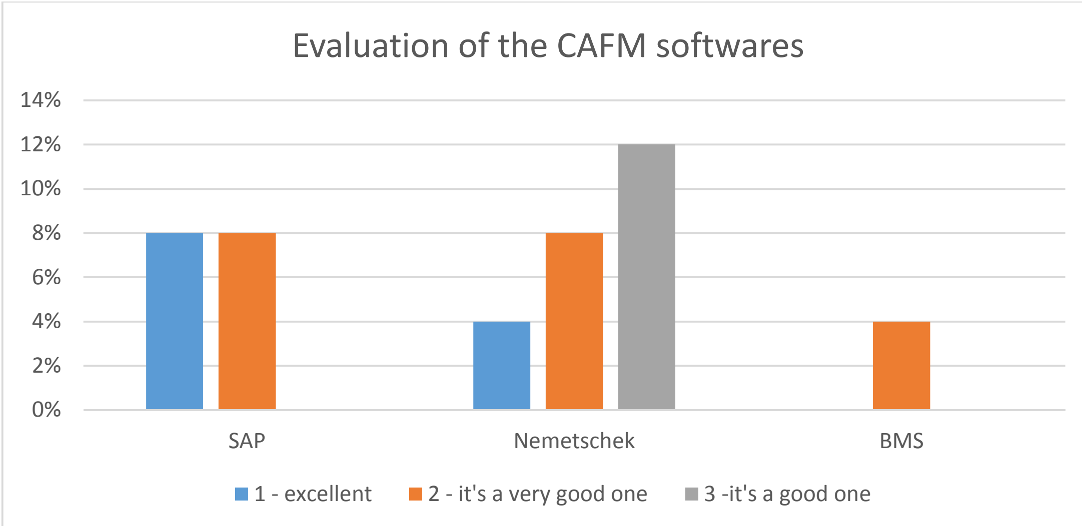


*Figure 71 - Evaluation of the CAFM systems known to the Bulgarian Market*

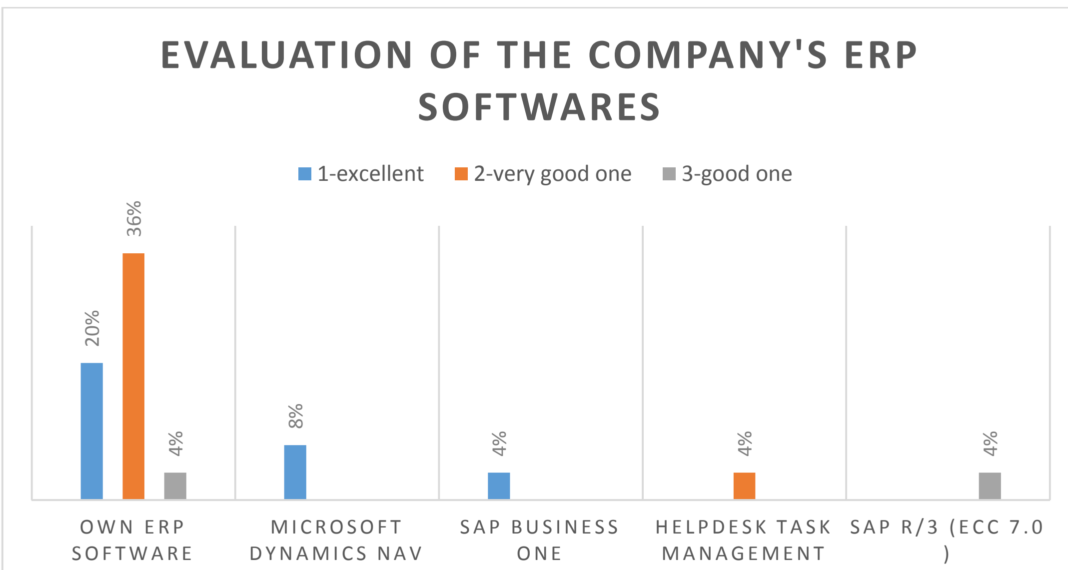


*Figure 72 - Evaluation of the most known ERP software of the Bulgarian Market*

## 5. Sustainability and Corporate Social Responsibility (CSR)

Over the last decades, organisations have become more aware of the importance of Corporate Social Responsibility (CSR) (Visser, W. and Tolhurst, N., 2010). They recognise the social, ecological and economic consequences of their activities and seek ways to incorporate their responsibilities in their governance and be transparent about it. This change is driven by several factors. An economic driving factor is the scarcity of resources, leading to innovations that focus on lean processes and cradle-to-cradle principles. Likewise, to remain competitive companies need to innovate, and CSR functions are triggers for new business concepts. (Loew, 2009)

An innovative example in the Facility Management field is a Job Development Center developed by ISS, which enables unemployed people to get the qualifications and confidence needed to acquire a job. (Nordic Innovation Center, 2010)

CSR helps companies to take responsibility and encourages sustainable development. It can also bring benefits regarding risk management, customer relationship, cost savings, human resource management and innovation (Per Anker Jensen & Theo van der Voordt, 2017). In addition, working from a CSR perspective may lead to more satisfaction and engagement among the employees (Jensen & Voordt, 2017)

The term "Corporate Social Responsibility" CSR is a new term for Bulgaria and a small percentage of Companies are concerned by actions above their corporate obligations concerning the society and the environment:

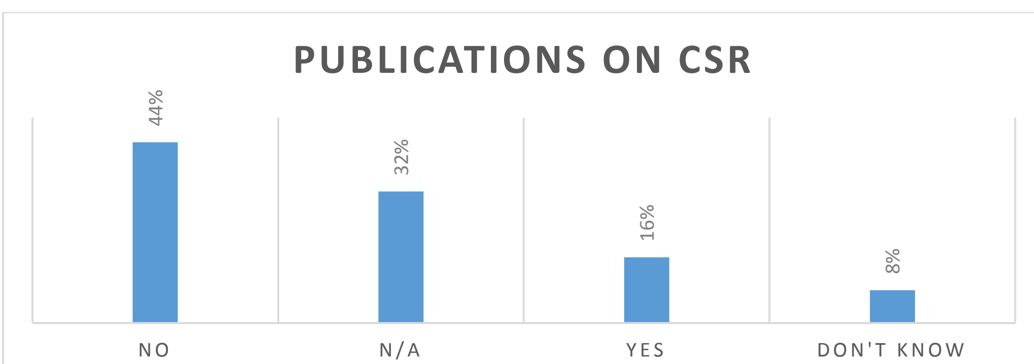


*Figure 73 - Percentage of Companies with CSR Publications - Survey Findings Bulgaria 2017*

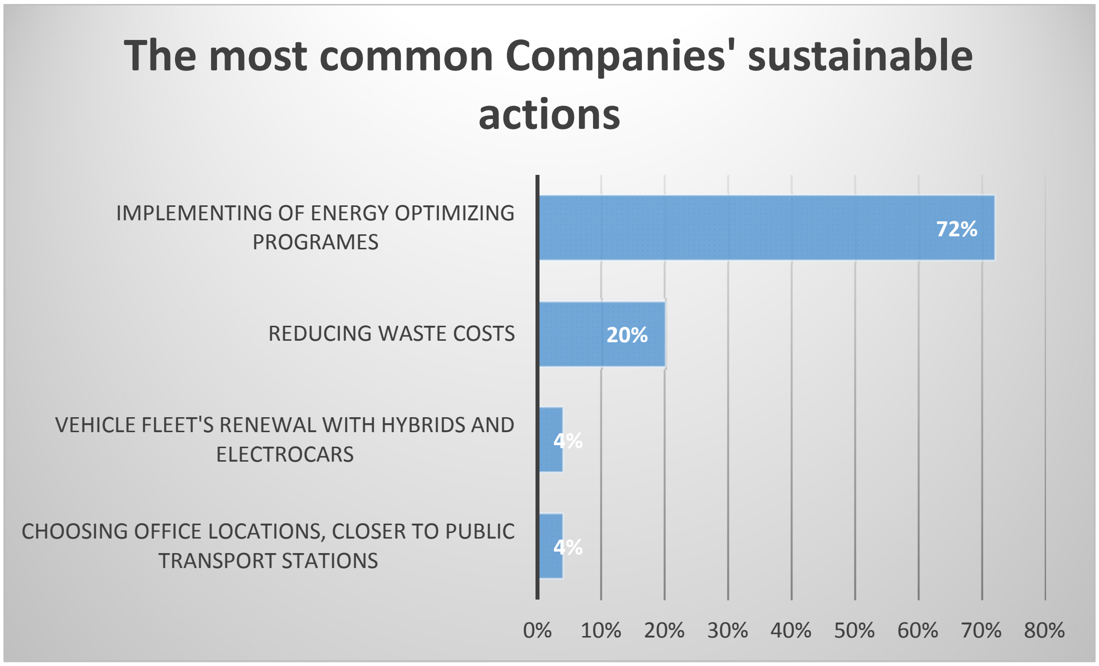


*Figure 74 - The most common Companies' sustainable actions - Survey findings Bulgaria 2017*

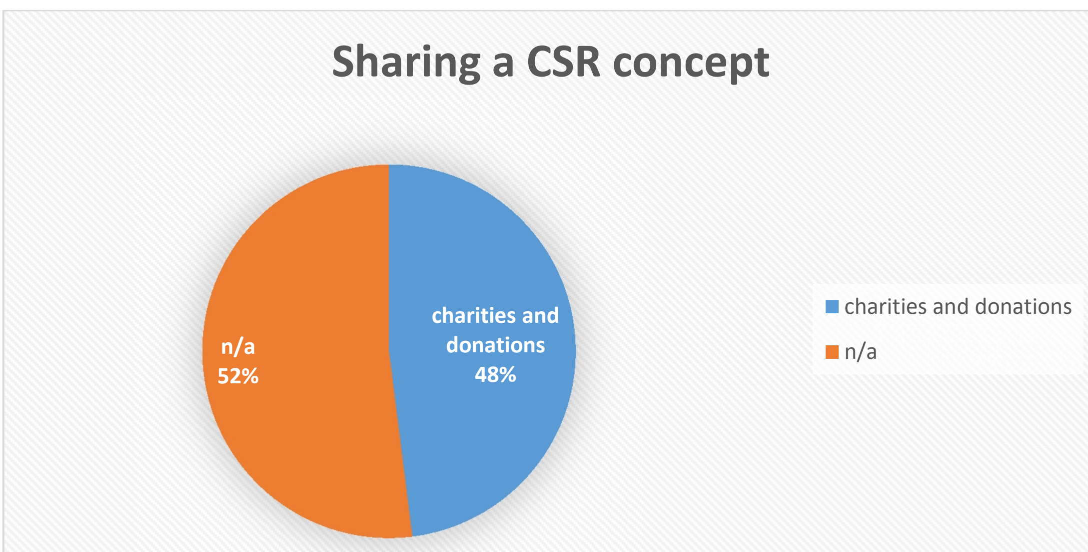


*Figure 75 - CSR Concept - Survey Findings Bulgaria 2017*

## 6. Conclusions

✓ Facility Management (FM) is adding value to the Companies' core businesses at the Bulgarian Market. The summarized data from this Survey shows that Companies with their own FM Departments, that are 84 % of the Respondents, achieve more savings than those without a FM Department. Bulgarian FM Market is following closely the European trends, i.e.:

- 88 % of the Austrian Companies operate an in-house FM Unit;
- 83% of the Spanish Companies operate an in-house FM Unit;
- 73% of the German Companies run their own in-house FM Unit;
- 72% in Romania

✓ 48 % of the Bulgarian Companies achieve savings less than 10% thanks to their in-house FM Departments and 36 % of the Respondents have reported achieved savings in the range of 10% - 30%. This data shows that the FM Market in Bulgaria has a great potential to implement many of the cost optimizing solutions that have been already applied by the European Companies, that are steps ahead of Bulgaria as their savings are not below 10%, but above 10%: " According to different publications ( (Scharer, 2002, p. 226), it is possible to save between 10% and 30 % of the costs of buildings through the efficient use of FM"

✓ Concerning FM Departments' Staff Bulgaria shows the similar employees' policy like Austria and Spain, but not Romania:

- The average staff of the FM Department in Bulgaria is represented by 10 employees (in 72 % of the questioned Companies) compared with 75 % for Austria, 68 % for Spain and 14 % for Romania.

✓ With results showing that 40 % of the properties' total size (770.242m$^2$) in this Survey, are managed by female senior managers the gender barrier is lifted away, also a good sign for the Bulgarian FM market.

✓ The most common size of the properties under FM Departments management are those between 10.000 m$^2$ – 50.000 m$^2$ (44 % of the Respondents), followed by properties' size between 50.001 m$^2$ – 100.000 m$^2$ (within 24 % of the Respondents).

✓ The Bulgarian FM Market is "hungry" for applying working energy optimizing solutions as the trial benchmarking data this survey gathered is that the Energy Consumption data for Bulgaria is higher than the data available for Germany:

- Energy Consumptions reported by the Malls Survey Respondents is 131 KWH/a/m2, while the data for Germany is 60 KWH/a/m2;
- And Energy Consumptions reported by the Offices is 88 KWH/a/m2, while the consumption for the German offices is 50 KWH/a/m2.

✓ 72 % of the Bulgarian Companies reported an Outsourcing Quote more than 75%, also an indicator that Bulgaria is a good Follower of the FM European Trends ( with 80 % of the Spanish Companies and 70 % of the Romanian Companies Outsourcing Quote of more than 75%.)

✓ There is a huge potential for implementing CAFM software solutions at the Bulgarian Market: only 8 % of the questioned Companies have upgraded their ERP Systems to CAFM Systems. This data shows a tremendous opportunity for growing of the CAFM Software Market in Bulgaria. The most known CAFM Software Products are the SAP, Nemetschek and BMS, when the current number of CAFM Software Suppliers are more than 50 for Germany and more than 100 worldwide (May, Miachael Hrsg., 3.Aufl.2013)

## 7. References

Aberto F. de Toni, A. F. (2009). *Open Facility Management, a successful implementation in a public administarton, a second citation by Alex Octavio Bayon in his Bachelor's Thesis: "Facility Management Market in Spain",06/2014 .*

Alex Octavio Bayon. (06/2014). *Facility Management Market in Spain - Bachelor's Thesis.* Real Estate and Facility Department TU Wien.

Ao.Univ.Prof.Dr.Alexander Redlein. (22/03/2015). *A1_Skriptum-Value_Added.* TU Wien.

*Benchmarks im Facility Management,www.facility-manager.de,* accessed 08/09/2017.

*EN 15221-1, Facility Management - Part 1: Terms and Definitions, cited by Ana Sanchez Le Monnier, 06/2016 in her Master Thesis "Facility Management Market in Spain and analysis of the time series", TU Wien.*

German Facility Management Association (GEFMA). (2016). Marktübersicht CAFM - Sofware 2016, Magazine.

*http://www.geo12.com/fileadmin/templates/tol_geo12/img/template_data/Grafiken/CAFM-GIS-CAD-Software-Prozessmanagement-G-2-GEO12.jpg*. (accessed 08/09/2017).

Jensen, P. A., & Voordt, T. v. (2017). *Facilities Management and Corporate Real Estate Management as Value Drivers, p.282.* Routledge Group,New York.

Kathy O. Roper and Richard P. Payant. (2014). *The Facility Management Handbook, Fourth Edition.* AMACOM, NY 10019.

KPMG LLP, KPMG 2015 Global Real Estate and Facilities Management Outsourcing Pulse Survey. (n.d.). KPMG 2015 Global Real Estate and Facilities Management Outsourcing Pulse Survey.

Lokhorst, J. R. (2013). "Hidden Vacancy", secondary citation, cited by Voordt E. (2017) in his book" How to manage and measure adding value", Routlage,NY, p: 243.

May, Miachael Hrsg. (3.Aufl.2013). *CAFM - Handbuch, IT im Facility Management erfolglreich einsetzen.* Springer - Verlag Berlin Heidelberg 2013.

Monnier, A. S. (06/2016). *Facility Management Market in Spain and Analysis of the time series - Master Thesis.* TU Wien - Real Estate and Facility Department.

Per Anker Jensen, & Theo van der Voordt. (2017). *Facilities Management and Corporate Real Estate Management as Value Drivers, p.281.* Routledge, New York.

*planonsoftware.com, accessed on 08/09/2017*

Prof. Alexander Redlein, TU Wien, in cooperation with Real Estate User Group (REUG), TU Wien. (22.03.2015). *A1_Skriptum_Redlein-Introduction.* TU Wien.

Redlein, A., & Zobl, M. (2014). *Facility Management in West and Eastern Europe, Vienna University of Technology, IFM ( second citation, cited by Monnier,A.S.(06/2016).*

Roper, K. O., & Payant, R. P. (2014, 08). *The Facility Management Handbook - Fourth Edition.* New York: AMACOM: a division of American Management Association.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Businees Students(5th Edition), Harlow, UK: Pearson Education Limited, cited by Monnier, A.S. 06/2016 in her Master Thesis" FM Market in Spain and Analysis of the time series".*

www.apis.bg, Bulgarian Trade Register' data - accessed 08/09/2017

Visser, W. and Tolhurst, N. (2010). The World Guide to CSR. A Country-by-Country Analysis of Corporate Sustainability and Responsibility . Sheffield: Greenleaf Publishing Limited.

## 8. Abbreviations

| | |
|---|---|
| AFE | Association of Facilities Engineering |
| BG | Bulgaria |
| BMS | Building Maintenance Savings |
| BoDs | Board of Directors |
| CEO | Chief Executive Officer |
| CFO | Chief Financial Officer |
| CIO | Chief Information Officer |
| COO | Chief Operating Officer |
| CPG | Consumer Packaged Goods |
| FM | Facility Management |
| FMSPs | Facilities Management Service Providers |
| IFMA | International Facility Management Association |
| IFMA | International Facility Management Association |
| IFMSS | Integrated Facilities Management Services Supplier |
| ISP | Integrated Service Provider |
| n/a | not applicable, not available or no answer |
| NFMA | National Facility Management Association |
| REP | Real Estate Portfolio |