EXPERIENCING EUROPEAN FACILITY MANAGEMENT CONFERENCE 2010

The Search of the Current Facility Management Topics

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Bachelor's Thesis
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Tourism, Catering and Domestic Services

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Abstract

The idea of this Bachelor's Thesis was to organise a study trip with a small group of Facility Management students and participate in European Facility Management Conference 2010 held in Madrid, Spain to define the current and future topics of Facility Management field and to experience the conference itself and see if it would be useful and meaningful to students, and if this type of study trip should be applied to the degree programme's curriculum.

Observation was chosen as a principal research method for this thesis as it was considered the most suitable method when participating in a conference. In addition, a short qualitative questionnaire was given to the participants of the study trip to receive their feedback of the trip and the conference itself as including their suggestions for the development of the curriculum.

The study trip and the conference were greater success than expected. The conference offered great experiences, exciting opportunities and interesting contacts. Most of all, it gave an amazingly vast source of information of the current and future Facility Management field.

The thesis deals with the main topics of EFMC 2010: Sustainability, Workplace Design and Management, Outsourcing, Performance Management and Added Value of Facility Management. In addition, the results of the questionnaire as well as improvement suggestions for the curriculum are presented.

Based on the results, it is highly recommend that the main topics of the EFMC 2010 should be integrated into the curriculum. The students' possibilities of participating in the conference should be promoted as well.

Keywords
Facility Management, European Facility Management Conference, Madrid, Sustainability, Workplace Design and Management, Outsourcing, Performance Management, Added Value of Facility Management

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Tiivistelmä

Opinnäytetyön aiheena oli järjestää opintomatka Facility Management -koulutusohjelman opiskelijoista koostuvalle pienryhmälle European Facility Management Conference 2010 -tapahtumaan Madridissa, Espanjassa. Tavoitteena oli selvittää toimitilapalvelualan nykyisiä ja tulevia aiheita sekä kokea itse konferenssi, jotta voitaisiin arvioida sen mahdollinen hyöty opiskelijoille ja vastaavanlaisen opintomatkan tarve koulutusohjelman opetussuunnitelmassa.

Pääasiallisena tutkimusmenetelmänä käytettiin observointia, sillä sen koettiin olevan tehokkain keino kerätä tietoa konferenssissa. Lisäksi opintomatkan osallistujille tehtiin lyhyt kvalitatiivinen kysely palautteen saamiseksi.

Opintomatka ja konferenssi olivat odotettua suurempi menestys. Konferenssi tarjosi hyviä kokemuksia, jännittäviä mahdollisuuksia ja mielenkiintoisia kontakteja. Ennen kaikkea se antoi hämmästyttävän paljon tietoa toimitilapalvelualan nykytilasta sekä sen tulevaisuudesta.

EFMC 2010 -konferenssin pääaiheita olivat: kestävä kehitys, työpaikan tilasuunnittelu ja johtaminen, ulkoistaminen, suorituskyvyn hallinta sekä toimitilapalveluiden tuottama lisäarvo. Opinnäytetyössä esitellään teetetyn kvalitatiivisen kyselyn tulokset sekä konferenssikokemuksen pohjalta tehdyt parannusehdotukset opetussuunnitelmaan.

Tuloksien perusteella on erittäin suositeltavaa lisätä EFMC 2010-konferenssin pääaiheet osaksi opintosuunnitelmaa sekä vakiinnuttaa opiskelijoiden mahdollisuus osallistua konferenssiin.

Avainsanat (asiasanat)
Facility Management, European Facility Management Conference, Madrid, kestävä kehitys, työpaikan tilasuunnittelu ja johtaminen, ulkoistaminen, suorituskyvyn hallinta, toimitilapalveluiden tuottama lisäarvo

Muut tiedot

CONTENTS

1 INTRODUCTION

1.1 Background of the Thesis

The idea for this Bachelor's Thesis originated from a lecturer who had participated in European Facility Management Conference (EFMC) a few times before and always thought Facility Management students should visit this conference as well. JAMK University of Applied Sciences (JUA) offered the authors the chance to organise its first study trip to European Facility Management Conference. In addition, it would be the first time for the students of the degree programme in Facility Management to conduct a study trip abroad. Even though the authors knew it would be challenging, the topic interested them greatly as it surely felt different and meaningful for them, their fellow students as well as to JUA. The destination came as an additional highlight of the decision; the authors would organise a study trip to Madrid, Spain.

1.2 Objectives of the Thesis

The main objectives of the thesis were defining the current and future topics and issues of the Facility Management field and determining the importance of the European Facility Management Conference to the Facility Management students. More specifically, the authors were aiming to define which subjects should be added into the curriculum of the degree programme and if participating in EFMC should become an annual field trip for the Facility Management students in the future.

In the year 2010, two Bachelor's Theses were done in order to improve the degree programme in Facility Management; Heidi Paananen's and Maria Rochdi's "Developing Ideas for the Curriculum in Facility Management: Competences and Future Prospects" and Sanna Lindberg's "Working in the Field of Facility Management". However, the present thesis differentiates from theirs as the European Facility Management Conference was used as the main source of information. The authors were aiming to receive the most current and updated information of the field since some of the information used in the

present studies seemed rather out-dated although the field has been constantly developing.

1.3 Research Methods of the Thesis

For this thesis, observation was chosen as the principal research method as it was considered as the most suitable method when participating in a conference. Two of the students who participated in the study trip were assisting the authors with the observation. In practice, we participated in the conference and took notes and collected information of anything and everything relevant. As there were four persons, they were divided into two groups, who joined different presentations in order to collect as much and different information as possible. The groups went to as many presentations as possible, discussed with numerous professionals and collected information of the companies and organisations that were having their own stands at the exhibition. With the help of the students and the effective work, a great amount of highly valuable and relevant information of the field was received. Furthermore, a short qualitative questionnaire was made to the participants of the study trip to receive their feedback of the study trip and the conference itself as well as their suggestions for the curriculum. The main findings from the conference and the participants' feedback will be presented later on in the thesis.

2 THEORY BASE

2.1 Definition of Facility Management

Facility Management first received formal definition in the late 1970s. Already at that time Facility Management stood for managing and coordinating interrelated "people, process and place" issues with an organisation (Brown & Lapides & Rondeau 2006, 3-4).

A facility is defined as a physical place where business processes are done and to perform facility management plans in accordance with the needs and demands of those processes (Uslegal, 2010).

International Facility Management Association IFMA was formed in 1980 and is the world's largest international association for professional facility managers. IFMA has defined Facility Management as *"A profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology "*(IFMA, 2010).

2.2 EFMC; European Facility Management Conference

2.2.1 Organisers of the EFMC; IFMA and EuroFM

IFMA is the world's largest and most recognised international association for professional Facility Managers with over 19 000 members in 78 countries. The association's members manage approximately 37 billion square feet of property and annually purchase more than 100 billion US dollars in products and services. IFMA was formed in 1980 and today its duty is to certify Facility Managers, provide educational programs, conduct research, recognise Facility Management certificate programs and produce large conferences around Europe and worldwide (IFMA, 2010).

The first meeting to create a European FM network was in The Netherlands in 1987. Currently, EuroFM has a board consisting of six representatives with Wayne Tantrum is the chairman. EuroFM consist of more than 90 organisations focusing on Facility Management. These organisations are active in over 20 European countries and represent national associations, education and research institutes and corporate organisations (EuroFM, 2010).

According to the information on the Euro FM web page, the association was initiated by four groups that form the core of Euro FM generating a rich mix of activity. These groups are the Practice Network, the Education Network, the Research Network, and the Corporate Associates (op.cit.).

EuroFM has developed from a small organisation to be the European representative of workplace facilities and services. Today the association emphasises on promoting Facility Management across Europe, adding value to their members, financial stability, dissemination of knowledge and information, and facilitating networking opportunities to share best practice (op.cit.).

The EuroFM members share information openly through meetings, seminars and workshops. The outcome of these activities are shown at the EuroFM website, in the two EuroFM Meetings hosted by the members, through newsletters, research papers and publications, and in an annual conference (op.cit.).

2.2.2 EFMC 2010 Madrid

IFMA and EuroFM together organise an annual conference European Facility Management Conference that remains one of the major meetings of the associations. The EFMC 2010 in Madrid became the first conference delivering revenue for the EuroFM association. There were 500 delegates from 40 different countries as participants (EuroFM, 2010).

The programme of EFMC 2010 started with a welcoming reception near the centre of Madrid in Puerta de Hierro 31st of May. The reception event was sponsored by ISS and offered relaxed surroundings for networking with fellow delegates. The actual two days conference in 1st and 2nd of June continued in the five stars Hotel Eurostars Madrid Tower which offered impressive and suitable facilities for the event (EFMC 2010, 2010).

The aim of European Facility Management Conference 2010 was to bring the world of Facility Management practice, research and education together with the core business. The conference consisted of two inspiring main elements, Business Conference and Research Symposium that were conducted according to their own topics and schedule. The combination of these two has been proven to be successful if integrated carefully. The idea of the Business Conference part was to use keynote speakers, plenary, parallel and integrated sessions that focused on the subjects representing the current and future business needs within Facility Management. The Research Symposium was

the ninth annual EuroFM Symposium and provided an opportunity to present, discuss and review the research carried out. The idea of the Symposium was to seek and share findings with the audience in line with EuroFM's overall objectives (EFMC 2010, 2010). The EFMC 2010 programme is presented in the Appendix 3.

Due to the recent economic problems, one purpose of the conference was to find joint solutions as the problems are shared all around the world. The main themes for the EFMC 2010 were Added Value for Facility Management, Performance Management, Sustainability, and Workplace Management. These main topics are presented later in the thesis (op.cit.).

Besides the Business Conference and Research Symposium, EFMC 2010 offered joint workshops, exhibition with eight stands, gala dinner with awards ceremony, Students' Poster Competition, and social events (EFMC 2010, 2010).

2.3 The Current Curriculum of the Degree Programme in Facility Management

The curriculum has been twice changed since autumn 2006. The curriculum used today is more compact, reasonable and more updated compared to the authors' curriculum. Since the amount of modules has been decreased and the present courses are more related to Facility Management field, it is possible to say that the degree program has improved. (Degree Programme in Facility Management, Jyväskylä University of Applied Sciences, 2010)

The current curriculum made up of eight modules: transferable skills, business environment competence in service companies, managing business in service companies, process management in facility services, managing innovations in a service company, research and development competence, personal development plan, and elective studies (op. cit.).

Transferable skills comprises 15 credits and includes the following five courses: ”Learning and Professional Growth”, ”ICT Skills”, ”Swedish for Working Life”, “English for Working Life”, “Communication Skills for Working Life”. All of

these give three credits each and are obligatory to all Facility Management students (op. cit.).

The second module Business Environment Competence in Service Companies gives 20 credits. Under this module are the courses “Man in the Service Environment”, and “The Business Environment of Service Companies”. Both of these are basic studies (op. cit.).

The third module has four elements and 45 credits where 15 credits come from the “Practical Training”. The rest of these courses are professional studies such as “Basics of Business in Service Company”, “Operational Management of a Service Company” and “Strategic Management” (op. cit.).

The largest module is the Process Management in Facility Services which gives the opportunity to receive 55 credits. Five of the courses are professional studies named as: “Service and Production Processes”, Facility Services”, “Environmental Aspects in Facility Management”, “Space Management”, “Design and Control of Facility Services”. “Service and Production Processes” and “Space Management” courses consist of five credits each while the other three courses are broader and generate 10 credits each. The second part of Practical training is under this category and gives another 15 credits when completed (op. cit.).

The module of Managing Innovations in a Service Company combines the “Research and Development of Facility Services” and “Sustainable Facility Management” courses. Both of these courses are professional studies with the expanse of 10 credits for the “Research and Development of Facility Management” course and five credits for the course of “Sustainable Facility Management” (op. cit.).

The current curriculum has a new module called Personal Development Plan which contains 50 credits. The only course in the professional studies under this module is “Research and Development of Facility Services” of 10 credits. The rest of the courses contain optional professional studies of five credits each and may be included under Personal Development Plan module or Elective studies. Those courses are: “Sustainable Development”, “Real Estate

Business", "Building Project Management", "Safety and Security", and "Facility Management Information Systems" (op. cit.).

The sixth module is Research and Development Competence which includes "Basics of Research and Development" which belong to professional studies, "R&D Process" which is part of the basic studies, and the "Bachelor's Thesis". Research and Development courses are ten credits in length and the Bachelor's Thesis is 15 credits (op. cit.).

According to the current studies, the last module in the curriculum is Elective studies of 15 credits. Students may choose modules from other degree programs, learn languages, participate in a study tour or work as a tutor helping the other students and organising events together with fellow tutors.

3 ORGANISATION OF THE STUDY TRIP TO EFMC 2010 MADRID

3.1 The idea of the study trip

The idea was to collect a small group of Facility Management students and participate in European Facility Management Conference 2010 to define the current and future topics of Facility Management field as well as to experience the conference itself and see whether it was useful and meaningful for students and should this type of study trip be applied to the degree program's curriculum.

3.2 Practicalities before the actual trip

After making the decision of organising a study tour to a conference never visited of a student group of JUA before, the work had to be started immediately. Firstly, the head of the Department and Programme Matti Hirsilä had to be assured and impressed that this pilot study trip to EFMC would be highly

essential to the degree programme in Facility Management. During the meetings he saw the potential in the thesis and offered his fullest support. However, before he could make any financial decisions, he had to know the costs of the trip; therefore clear budget estimation had to be made.

For the budget the most affordable online travel agencies were browsed through. It was quickly noticed that packages including both flights and accommodation were much more affordable than common trips. Nevertheless, the prices of both options are showed in the budget: the packages including flights and accommodation and the separately booked flights and accommodation. Naturally, all the other possible costs were calculated as well: local transport, eating, and the conference fee. The budget estimations are shown in the Appendix 2.

The budget had to be approved which took quite some time. Nevertheless, the waiting was rewarded by a very generous deal offered by JUA for the participants that made the authors anxious to spread the word of a magnificent trip that would be organised.

Originally, the authors would have liked to promote the study trip by going to Facility Management students' lectures and tell about the details personally. Unfortunately, during spring time very few students were present as there were not many lectures running. In the end, due to the lack of time, it was decided to reach all the Facility Management students the students via email.

An enthusiastic and interested response was expected, but not very many replied to the email. Some asked additional questions, but yet decided not to join. Even though the purpose was not to collect a large group, the authors worried whether there would be any participants at all. The group email was sent once again now including also International Business and Finnish Facility Management students. In addition, Kirsti Hintikka-Mäkinen asked the authors to write to the students who were supposed to participate in the Students' Poster Competition in EFMC, to raise their interest and enthusiasm towards to the participation.

After few more emails, a very nice group of students was collected for the study trip. Two of the students were actual participants of the study trip; they

helped the authors to collect relevant information from the conference for this thesis. Two other students, who were exchange students, were competitors at the poster competition but wanted to come with the authors as they were travelling to and from Madrid with a different schedule and plan as the rest of the poster competitors, who were four students as well. In the end, there were ten international Facility Management students representing JUA at EFMC 2010.

Although the authors had already been browsing for the flights and accommodation for six months, the actual booking of the trips happened very close to the departure. However, very affordable flights and accommodation combinations were reserved. Especially, the hotel was in an excellent location, right at the heart of Madrid.

Originally, meetings with the participants were wished to be conducted prior the trip, but in the end the contact was only kept via email. Luckily, the authors and the participants had time to get to know each other during the first days of the trip prior the commencement of the conference. In addition, the last minute meetings as well as active emailing regarding the practicalities were conducted with Hintikka-Mäkinen prior the study trip.

3.3 On the study trip: experiencing EFMC and Madrid

Usually, preplanning of a study trip would include designing a daily programme. Even though an exact daily programme was not designed beforehand, the authors had decided to fly to Madrid few days earlier in order for the participants to get to know each other and to be prepared for the conference. This decision proved to be a very wise one many times during the trip.

In the evening prior the actual conference, there was a welcome reception which was a casual gathering with the participants of the conference to meet, discuss and network. Already during that evening, many conference participants were interested in the student group’s composition.

The conference was organised in an exclusive five star Eurostars Madrid Towers hotel. The opening ceremony of the conference was very inspiring and enthusiastic thanks to the very special guest speakers. Right after the cere-

mony the actual conference commenced followed by frequent meal and coffee and tea breaks.

The conference was divided into two main parts, the Business Conference and the Research Symposium. Both of them were divided into different sessions by their topics with were two sessions running at the same time. The most relevant sessions were already chosen by the authors before the trip. The group of four was divided in two to maximise the information gathered. Contacts were also made with numerous professionals. Thus, the participants of the study trip were found very helpful and active by the authors.

During the breaks the conference participants could enjoy the exhibition of the organisations and companies of the field as well as the exhibition of the posters participating in the Students' Poster Competition. The breaks were convenient for networking and greeting friends as well. The students were certainly overwhelmed by the great attention received from the professionals as they were invited to several post-conference occasions that allowed further networking.

The conference days were hectic and busy but ultimately very enjoyable, interesting, awarding and exciting. The only downside was that they passed too quickly, as the conference soon came to its magnificent end; the exciting final of the poster competition where one group from JUA came in second. The whole student group was very content and proud of the success.

3.4 The outcome of the trip

The conference offered great experiences, exciting opportunities and interesting contacts. But most of all, it gave an amazingly vast source of information of the current and future Facility Management field. One of the participants said that she learned more in just two days than during the whole first year of studies. It was astonishing for the students that the field came very clear for the first time during the entire studies.

Overall, the trip and conference were greater success than ever expected. Even though there was a challenging beginning with few struggles along the

process, amazing results, experiences and ideas were received from the conference and the whole journey. Not only the authors were pleased and content, but also the participants of the study trip which made the authors even more satisfied of their achievements. Since everyone was enjoying the conference and the trip itself so greatly, they had a remarkable time together as a group as well. Perhaps this sense of togetherness made the trip even more special.

The authors cannot see any reason why Facility Management students should not participate in this conference. EFMC should not be underestimated any longer since not only the students but also the lecturers, universities, professionals and companies would benefit if more and more students participated in these types of events and occasions. It was not expected that students would be as praised and respected as they were in EFMC. As mentioned many times during the conference" the students are the future", it shows that the professionals have noticed the great importance of investing in the education of Facility Management in order to support and improve it.

3.5 Participants' Feedback from the Study Trip and EFMC 2010

3.5.1 Questionnaire to the participants

After returning back to Finland, a short questionnaire was made in order to receive the participants' feedback of the study trip and the European Facility Management Conference itself. The research method was qualitative as the respondents were few and known. There were four students as participants of the study trip; one first year Facility Management student, one third year Facility Management student and two third year exchange students. The questions as well as the feedback are presented in the Appendix 1.

3.5.2 Feedback from the participants

As the organisers of the study trip, the authors were very pleased to receive highly positive feedback of the overall organisation of the study trip as well as the conference itself. All the participants were very satisfied with both and they had very much enjoyed their time in Madrid. The great location of the hotel and the time spent together in Madrid were highly appreciated but the greatest satisfaction came from the conference which surely exceeded the expectations of all the students.

Based on the feedback from the participants, the conference introduced the current Facility Management trends and topics, gave a clear picture of the field and its processes now and in the future and most importantly offered a great possibility to meet professionals of the field, build important contacts and in the best case ease to receive a future job in the Facility Management field.

All the participants were very active and interested to discuss with the other participants of the conference besides taking part of the Business Conference and Research Symposium. Space Management and Energy Efficiency were few of the topics that were found most interesting and important. The students were pleased to receive a significantly better and clearer idea of Facility Management than ever during their studies which made them realise what was lacking in the degree program. In addition, they were introduced to many different Facility Management companies to see what type of professions one can get in the field.

Based on the participants' experiences from the conference, they suggested applying more engineering, technological and architectural as well as space management and energy consumption studies into the degree program. One of the participants mentioned that not only knowledge of management is useful, but also to learn how to use technology to manage is essential. Another student also agreed that computer programs used by facility managers would be beneficial to learn. Research related studies were considered useful as well. More international guest lecturers and clearer, more complex study program were wished instead of teaching insufficient scattered pieces of many different topics. One student even suggested this conference to be added as a mandatory study trip for Facility Management students and all of them would

highly recommend it to their fellow students as they found it very beneficial and useful for every Facility Management student to experience.

Although all the students would highly recommend the conference, their answers when it would be the best time varied among them. Few suggested third year, one second year and another one thought any year would be suitable. The ones who suggested third year explained that then students usually have enough information of the field to keep up at the conference as the one who thought any year would be suitable stated that at any point it is useful to receive the latest information of the field and have a good experience of the conference. For the student who suggested second year it seemed a proper time to participate in EFMC as it would give ideas for the students in which direction to continue their studies.

4 THE RESULTS: THE MAIN TOPICS OF EFMC 2010

This chapter introduces the main topics of the EFMC 2010 describing the current and future situation of Facility Management. Some of the topics were fairly challenging as the conference is mainly targeted to the professionals of the field. The most challenging topics were Added Value of Facility Management and Performance Management.

4.1 Sustainability

In today's business world, sustainability seems to be one of the most current topics. It is certainly not a surprise; the whole world is undergoing major environmental chances and challenges that need immediate actions. It is now or never not only for the professionals but all the human beings to reconsider their everyday habits both in business and personal lives.

World Commission on Environment and Development (WCED) defines Sustainability as:"Development that meets the needs of the present without com-

promising the ability of future generations to meet their own needs" (Balslev, 2010).

In the EFMC 2010 sustainability as well as energy consumption and efficiency issues were widely dealt with both in the Business Conference and Research Symposium. The following information was compiled from the presentations and papers given in EFMC 2010 as well as from the brochures and publications collected from the exhibition stands.

4.1.1 World Business Council for Sustainable Development: Platform to the Sustainable World

World Business Council for Sustainable Development (WBCSD) is a global association of approximately 200 companies dealing closely with business and sustainable development. The ambition of the WBCSD is to be the leading platform of collective business actions and the public private partnerships needed in the transformation to a sustainable world. Its objectives are to be a leading business advocate on sustainable development; to help develop policies that create framework conditions for the business contribution to sustainable development; to develop and promote the business case for sustainable development; to demonstrate the business contribution to sustainable development and share best practices among members; and to contribute to a sustainable future for emerging economies and developing countries (World Business Council for Sustainable Development, 2010).

Christian Kornevall, the director of Energy Efficiency in Buildings Projects and Electricity Utilities in World Business Council for Sustainable Development (WBCSD), was invited to EFMC 2010 as a keynote speaker to share his and his colleagues' findings of their 4-year research in energy efficiency in buildings. A shared vision defined during the project was "a world in which buildings consume zero net energy".

Based on the second Energy Efficiency in Buildings (EEB) report "Transforming the Market" (2009), the needed transformation of energy consumption should address the following subjects;

- A lack of transparency for energy use and cost, due to limited focus on energy costs, overlooked viable investment opportunities and installed technology that is not operating at optimal levels
- Public policies that fail to encourage the most energy-efficient approaches and practices, or actively discourage them
- Delays and poor enforcement of policies and building codes concerning all countries
- Complexity and fragmentation in the building value chain inhibiting a holistic approach to building design and use
- A lack of adequate offers that should be affordable and quality energy-efficient solutions adapted to local contexts
- Split incentives between building owners and users as the returns on energy-efficiency investments are not going to investors
- Insufficient awareness and understanding of energy efficiency among building professionals which limits their involvement in sustainable building activity and results in poor installation of energy-related equipment.

Remarkably, all the subjects mentioned are financial factors although it has been verified by the Peterson Institute that increasing building efficiency offers the lowest cost solution to achieve national energy and climate objectives (Kornevall, 2010).

According to EEB report (2009) the following changes are required to reach the goal of a more sustainable future;

- Mandatory enforced energy codes, both new and existing
- High subsidies to eliminate first cost hurdle
- Research and Development for higher efficiency at lower cost
- Passive designs to reduce energy demand
- Improved operations of buildings (Facility Management)
- Education and training to change behaviour and mind-set
- Solving the split incentive issues by negotiating with the owners and sharing the benefits of reduced energy bills

- Increasing the willingness to retrofit by mandating building energy labelling, tuning property tax to label and offering first cost subsidies for holistic retrofits instead of single components
- Including building energy performance in health and safety legal framework
- Introducing a carbon tax that can finance subsidies for new near zero net energy buildings and linking first cost subsidies to energy savings.

4.1.2 Sustainable Workplace with the Focus on the Triple Bottom Line

Steen Enrico Andersen, director of PHL Architects in Copenhagen, Denmark gave a presentation of a sustainable workplace that is focused on alleged triple bottom line; people, planet and profit.

Andersen (2010) stated that many new sustainable buildings have been built and designed in a way that focuses solely on their physical and environmental impact as criteria for achieving sustainable development. However, this is not enough to guarantee a proper sustainable workplace. In order to create a successful sustainable workplace, the design process must focus on all the factors: the physical building, the environmental impact and the individuals and organisation. The holistic integration of environmentally sustainable design with workplace design will result in a sustainable workplace with valuable outcomes such as supporting corporate social responsibility as well as recruiting and retention of staff; increasing interaction and communication and therefore the employees' satisfaction and well-being; reducing churn costs; and enhancing brand and image of the organisation (Andersen, 2010).

The facility managers' role is to facilitate the processes for creating an attractive healthy workplace for the people, support the implementation of sustainable design and behaviour for the planet, and define and measure the added value for organisational profit (op.cit.).

4.1.3 Sustainable Ways of Water Conservation and Efficiency

Jeffrey Van Ess and Tricia Kuse (2010) write of the importance of water conservation and how to implement a successful water efficiency plan in a company (2010, 56-61).

Saving water and energy go hand-in-hand with sustainability wherein water is arguably more finite and precious than energy. Naturally, water and energy are closely connected as it takes large amounts of water to produce energy and substantial energy to distribute, purify water and heat it for numerous uses. That interconnectivity is called the energy-water nexus (Van Ess & Kuse, 2010, 57).

Since 99 percent of the water on Earth is salty or locked in ice and glaciers, there is not plenty of water left for the humankind's everyday use. Therefore, smart water management that applies to the right expertise, processes and technology can help to take full benefit of the water on each step of its journey, from its source to users and back to the environment. Moreover, each improvement saves energy along the way (op.cit. 57).

Van Ess and Kuse write how water efficiency pays off the investment faster than people actually might expect, especially when considering all the costs of wasting water. Apart from monthly or quarterly water and sewer costs, there are also costs of softening, heating, pumping, treating for process uses, pretreating as waste water before discharge to the sewers and paying maintenance personnel who service water-using devices (op.cit. 56).

In other words, saving water saves energy, chemicals, labour and equipment as well. Combining these savings with the benefits of reducing greenhouse gas emissions, meeting sustainability goals and earning credits towards green building certification clarifies why facility managers perceive more water efficiency nowadays (op.cit. 56).

According to a research conducted by McGraw-Hill Construction (2009), presented in Van Ess's & Kuse's article, applying water efficient designs and products leads to 15 percent less water use, approximately 10 percent less energy use and about 12 percent lower operating costs. Another research in construction industry shows that lower energy and operating costs are the two

main reasons owners are incorporating water efficiency into projects (op.cit. 56).

The writers (2010, 56) state that the fundamental disciplines for both water and energy saving are the same: identifying and fixing the sources of waste; installing more efficient equipment; adding automation and controls; improving maintenance and operating practices; measure results and establish continuous improvement strategies; and educating users and changing wasteful behaviours. An effective water efficiency programme follows the continuous cycle of measuring, managing, monitoring and reporting (op.cit. 56).

Van Ess and Kuse (2010, 56) mention a 2006 United Nations report which stated that by 2025, 1.8 billion people will be living in countries or regions with absolute water scarcity and two thirds of the world population could be under water stress conditions. This shows how conserving water has become a critical priority worldwide and could rapidly become a limiting factor of the economic growth (op.cit. 56-57).

The writers tell (2010, 57) that the pressure on the water resources is increasing due to the demand for energy. Writers state that according to the Sandia National Laboratories of U.S Department of Energy (2008) approximately 40 percent of all the daily fresh water withdrawals are used for cooling at large scale electric power plants. American Water Works Association informs that in regions were great amount of water is needed to produce electricity; people tend to use the same amount of water to switching on the lights and running electrical appliances each day as they use taking showers and watering gardens. Moreover, U.S Department of Energy has calculated that an average of 11.5 percent of the energy used in a commercial building is for water heating (Van Ess & Kuse, 57).

The idea of water being cheap and abundant is going to change since water rates have risen by 100 to 500 percent in the last decade and are likely to keep rising at an average of 10 percent per year, as the U.S Department of Energy reports (Van Ess & Kuse, 2010, 57). The picture does not seem any brighter as Van Ess and Kuse (2010, 58) write that according to United Nations Environmental Program, buildings consume 20 percent of the world's available water.

A successful water efficiency programme includes an analysis of current use and an evaluation of measures that could be taken to reduce consumption. Firstly, the current water usage should be determined in order to create a baseline before comparing against industry benchmark consumption figures for similar facilities. After that, simple analysis tools can be used to model the effects of different packages of water efficiency improvements and estimate their financial benefits (Van Ess & Kuse, 2010, 58).

Van Ess and Kuse (2010, 58-59) show some of the most effective measures to curtail water consumption:

Water-efficient green buildings solutions: Facilities can cut energy and water consumption by 10 to 50 percent with basic conservation and operational enhancements such as heating, ventilation and air-conditioning system and other equipment modernisation; process improvements; and installation of efficient faucets, toilets and showerheads.

Landscaping and smart irrigation: Since landscape irrigation uses vast amounts of potable water, simple conservation measures would be choosing plants that need less water, capturing runoff from the roofs and parking lots for irrigation, and avoiding watering during the day when evaporation losses are high.

Building automation enhancements: Having a building automation system can help managers measure, monitor and regulate water consumption in the facilities.

Metering and sub metering: With a help of an accurate metering of specific equipment and systems managers can detect when devices are using more water than usual and may be leaking.

Cooling tower optimisation: Cooling water consumption can be curtailed with measures such as avoiding excessive blow down, sub metering and recording blow down to detect anomalous usage patterns and leak, and investigating use of steam condensate for cooling tower makeup.

Conservation education: Items such as training modules, brochures, signage and bathroom mirror stickers should be used to remind occupants to conserve water.

The writers remind that naturally water efficiency requires investments (2010, 60). In an ideal performance contract engaged with an energy service company (ESCO), water and energy saving projects are combined as the ESCO replaces the aging equipment and systems with modern, efficient technologies (Van Ess & Kuse, 2010, 60).

Water conservation contributes to key organisational aims in manners that go beyond savings, as corporate, municipal and institutional sustainability policies increasingly include and emphasise water efficiency. Sustainability initiatives will continue to expand and therefore the motivation to conserve water as well. Investments water efficiency can bring quick and substantial returns on investment. Funding mechanisms available today make those investments more attractive than ever, therefore the time is right for all who use, distribute and treat water to apply the latest knowledge and tools to drive out waste and use the resource to the fullest (op.cit. 61).

4.1.4 Recycling, Packaging and Waste Elimination

In his article, a Facility Management and Sustainability consultant Bill Conley (2010, 50-54) writes about the importance of proper recycling and waste elimination. He is comparing a facility to a human body; the health of the facility depends on the choice of the products, the usage of the chosen products and the waste handling (op.cit. 50).

When choosing the products, Conley (2010, 52) recommends to pay attention not only the content of the products, but also to exterior; the packaging. He is revealing the devastating facts of packaging; they represent approximately 65 percent of household trash and 1/3 of an average landfill in United States. Therefore, it is highly important for the companies to choose products consisted of recycled material and/or contain recycled contain as it is cost effective and serves as an investment in the future. Conley (2010, 52) gives few examples; mining and transporting raw materials for glass produces approximately

385 pounds of waste per ton of glass manufactured. If even just a half of raw materials were substituted by recycled glass, the waste would be cut more than 80 percent. In addition, the energy saved from recycling one glass bottle causes 20 percent less air pollution and 50 percent less water pollution than when manufacturing a new bottle from the raw materials (op.cit. 52)

According to Conley (2010, 54), recycling is diversion of products from landfill that can be processed and returned to consumer circulation, returning valuable resources to the production process. The cumulative effects reduce landfill volume and minimise the dependence on resources. In the office environment this recycling programme applies to paper, glass, plastics, cardboard and metals. The writer shows another examples of reality; a used aluminium can is recycled and back in use in 60 days and it can be recycled unlimited times again. Contrarily, wasted aluminium takes 500 years to decompose as for a modern glass bottle the time is 4000 years. However, each ton of recycled paper can save 17 trees, 380 gallons of oil, three cubic yards of landfill space, 4000 kilowatts of energy and 7000 gallons of water. This example represents a 64 percent energy savings, a 58 percent water savings and 60 pounds less of air pollution (op.cit. 54).

Conley (2010, 54) states that alternatives to trash disposal must be utilised in order to ensure the protection of our lands and communities, as the trash capacity is increasing and current landfills are expanding, to accommodate the continually growing amount of waste (op.cit. 54).

The main three prerequisites of purchasing cycle are cost, care and consideration, says Conley (2010, 54). The people, facilities and the environment as whole are affected by the decisions that are made, products that are produced and the subsequent elimination of waste. Therefore, purchasing the right product is a part of life (op.cit. 54).

4.2 Outsourcing

4.2.1 Case study: Facility Management "The ISS Way"

Outsourcing is a fundamental business model for the Facilities Management industry. This was clearly seen at the EFMC 2010 as there were many outsourcing companies such as Eurest Services and Compass group represented. However, we chose to take the ISS Group as our example of outsourcing since it is one of the world's largest commercial providers of facility services and was the visible gold sponsor of EFMC 2010. Moreover, we were fortunate to have closer interaction with ISS as we were invited both to the welcome reception and the post-conference wines and tapas gathering hosted by the company and met many professional managers of ISS. Since ISS was an exhibitor in the conference as well, they provided plenty of information of the company of which the following case study is based on.

The ISS Group is one of the leading Facility Services companies, providing integrated service solutions based on the core business areas of Cleaning, Catering, Property, Security and Support Services and employing more than 500,000 people in over 50 countries worldwide. ISS is very proud of its more than 100 years of history in services as well as its hard-working employees. The company's long experience has shown that satisfied employees are a precondition for both high retention rates and high level of client satisfaction (Facility Management The ISS Way, 2010).

The company promotes its services by providing "Facility Management The ISS Way". It is described by the CEO of ISS, Jeff Gravenhorst, as more than an approach to the field but as the name of their corporate strategy and general philosophy of doing business (op.cit).

Outsourcing Facility Management provides the following advantages according to The ISS Group:

Liberating resources: Outsourcing will enable the organisations to reduce their costs and focus more on their core businesses. With access to the best practice processes and locally-based people, the outcome of a transition pro-

cess becomes a strategic advantage. ISS creates an integrated onsite service team that gives control and the ability to be flexible and act fast. Integrating service areas creates more effective and flexible performance which makes outsourcing is a cost-effective solution. In addition, outsourcing can increase job satisfaction and loyalty to the employees due to improved service levels and proactive management. Having a Facility Management solution from ISS allows an organisation to pursue its strategic goals and improve its core competencies while being serviced by the Facility Management specialists.

Creating employee satisfaction: Successful Facility Management outsourcing and collaboration consists the well-planned transition and mobilisation process as outsourcing should always be a positive experience for all parties, including the outsourced employees. Outsourcing non-core services allows management to ensure optimal working condition and therefore improve productivity.

Flexibility and Quality: The common goal is to achieve process excellence as all the Facility Management solutions provided by ISS are delivered with same focus on people and the service management process. Since the correlation between price and quality is always important, all ISS solutions are driven by efficiency and cost management.

Creating more value: ISS states that an outsourced Integrated Facility Service model is optimal, especially for large organisations. Since the business environment is increasingly globalising, high rate of innovation and change readiness is needed which again necessitates a highly flexible and dynamic organisational model. Outsourcing enables an organisation to meet the ever-changing needs of a global workforce. ISS has a deep understanding for local requirements, but also an ability to optimise processes and procurement in a way that best practice and development initiatives are transferred horizontally, regionally and globally.

Reducing risks: Having the opportunity to share commercial, pricing, continuity, health, safety and environmental risks with the Facility Management provider is another advantage of outsourcing.

Working with service excellence: ISS has proven quality programmes in all service areas to ensure the professional performance. The company delivers more than 100 individual services, that can be provided individually or through an integrated model in a Facility Management set-up. The latter is a model in which the services are delivered through a seamless integration of people, processes and management.

Optimising Facility Management: Through the Integrated Facility Services approach, ISS takes away the middleman layer, narrowing the managerial gaps between the strategic, tactical and operational levels. The Account Manager makes all the important decisions in close collaboration with the client's management and staff.

Integrated Facility Management: The cornerstones of this approach are people and processes. Motivated people and a continuous focus on processes result in cost-reductions in the form of synergies and integration. From there, integration has a positive effect on both client's and ISS' employees' satisfaction. Naturally, employee satisfaction has a direct impact on the quality of service, especially in the service industry. Therefore, it can be said that Integrated Facility Management creates value.

Increasing Cost Efficiency: In a first-time outsourcing, it is possible to reduce the cost base by 10-12 percent in the first year and by an additional 2-4 percent each subsequent year. Outsourcing of Facility Management should be seen as a strategic partnership in which the service provider is able to integrate people, processes and systems in a delivery model which increases efficiency and releases resources (Facility Management The ISS Way, 2010).

4.2.2 Outsourcing and Human Resources Issues

Managing people in an organisation is not easy, but managing people who are outsourced is even more challenging. An outsourcing situation often involves a multitude of Human Resources issues. The desired outcomes can be achieved using best-practice activities within Job Design, Change Management and Contract Formulation. Frequently, outsourcing contracts fail or suc-

ceed based on how well the employee transfer process is managed (Andersen & Ankerstjerne, 2010).

Change Management is essential part of outsourcing and it has two main objectives; to manage the psychological state of employees and to ensure services are delivered to the client without disruption. However, often inadequate focus is put on the first objective, and many change projects fail as a consequence. Therefore, an important process tool in this context is high level of participation that correlates well with the success of change programmes (op.cit.).

The challenges of outsourcing were dealt in the Research Symposium as well. Ian Ellison and Steve Owen (2010, 3) stated in their paper that a linear project approach to the change management of Facility Management outsourcing, even with the inclusion of human resource considerations, is limited in its ability to affect and sustain organisational change and performance improvement. According to the researchers, it is easy to say that better collaboration, two-way information exchange, and trust would result in a more productive partnership approach. However, the evidence suggests this is extremely challenging to achieve (Ellison & Owen, 2010, 8). According to their research, an approach to Change Management, particularly in a Facility Management outsourcing contract mobilisation context, should be derived that is both sympathetic and progressive (op.cit.10).

Even though Human Resources issues are crucial to the success of outsourcing contract, they are paid inadequate attention. Nevertheless, there have been indications that Human Resources practices can and should be improved significantly during outsourcing to ensure the success of the contract (Andersen & Ankerstjerne, 2010).

4.2.3 Performance Management in Outsourcing

According to the ideas of Armstrong (2006), presented in the paper of Andersen and Ankerstjerne (2010), Performance Management can be defined as the process of directing and supporting employees to work as effectively and efficiently as possible in alignment with the organisation. Therefore, Perfor-

mance Management tools are effective means as outsourced employees are expected to perform and act in accordance with objectives set both the service provider and client. Outsourcing raises a number of specific issues regarding to how effective performance management can be realised (Andersen & Ankerstjerne, 2010).

In order to ensure that the objectives motivate and improve performance, the objectives should be challenging but achievable and they should be formulated in an agreement between the manager and the employee. Studies show that if the objectives set are too low, high or vague, the objectives may have no effect or may even have a negative effect on motivation and job satisfaction levels. Furthermore, if the objectives are set by the manager without any benefits for the employees, the objectives will have little effect (op.cit.).

A clear and structured evaluation process has a positive influence on motivation and job satisfaction as it may provide clarity concerning expectations and feedback. In addition, training and development programmes are necessary to continuously deliver a high level of customer service and maintain a high performance level (op.cit.).

4.3 Workplace Management

Daniel Linman (2010) defines workplace management to be series of activities of planning, designing, using, disposing items surrounding the workplace. Its purpose is to help employees to organise their daily tasks and optimise the use of the resources and facilities. In addition, a workplace management plan is needed to mark down the possible challenges of the workplace and to notify the needs of the employees (My Management Guide, 2010).

One of the main topics at the EFMC 2010 conference dealt with Workplace Management. Traditionally, the workplaces are pictured as office spaces but yet the situation is transforming since the technology is constantly developing. The following information has been compiled from the EFMC 2010 material.

4.3.1 Four Generations Having a War at Work

In the presentation of Teo Manzano of Steelcase, a global publicly traded company (2010), the people examined in the survey are divided into the following groups: Traditionals, Boomers, Gen X'ers, and Millennials. The division in these groups is based on the age, which is considered to affect their behaviour in the workplace. (Manzano, 2010)

According to Manzano (2010), the Boomers include the people born between 1946 and 1964. These people tend to maintain collaboration in the workplace since it is their job. The Boomers desire to have spaces made for teams or groups to feel the importance of being a part of a corporate culture (op. cit).

The Traditionals believe a workplace reflects to accomplishments and they derive identity from the place. This group of people were born earlier than 1945 being 65 years old or older. Consequently, the home base has a great importance to them. In Finland, people over 65 are considered pensioners (op. cit).

The Gen X'ers are preferred extras at work. This group of people between 32 to 45 years of age appreciate the look and quality of space that furthermore supports the personal expression (op. cit.).

The Millennials were born after 1979 and they are able to work anywhere. For them the comfort is important and they prefer to have informal spaces (op.cit.).

At the moment, the Traditionals are the largest group with about 314 million people whereas the Millennials come at the second group with 220 million people. The Gen Xers and the Boomers are both minorities of all the workers with slightly over 100 million people each (op. cit.).

Steelcase shows how the generations are expected to be placed in the work pattern as well as in the life pattern. The Boomers were at the top at the 1990 and they were concentrating into the work itself. Today they are known as the knowledge workers. The Gen Xers were the people combining the balance of work and life and are known as the creative workers. Now the Millennials are a great part of the work life and they have an integrated lifestyle. In 15 years

the development has grown from the knowledge workers to the net workers (op. cit).

The age difference is evolving at the workplace. The young people prefer to work with others whereas the older generations prefer to work on their own. The most suitable collaboration way is in small groups or in pairs. Typically, the leaders are found from amongst the Boomers or the Gen Xers (op. cit.).

The survey shows what keeps the workers from being efficient at the workplace. The Millennials are a group spending most of the time in front of a computer and are taking time for their own music downloads, community networking and dating at the internet. They are not disturbed of noise, visual disturbance or ergonomics as much as the other generations. Consequently, the Millennials complain about the health issues and are often the group to be most irritated by their leader. For the Boomers, noise at workplace is a drawback (op.cit.).

The future hot spots at the workplace were shown in the survey. The Traditionals would like to have their own personal desks whereas the Gen Xers and the Boomers would prefer to work from their home or through a satellite office near their home. For the Millennials, the most preferred work place would be next to coffee corners or in an open space since they prefer it more than a closed office (op. cit.).

For all the generations, the future hot spots for working are in-between spaces such as coffee places, gardens, terraces, and libraries. Besides working, in these spots workers can occasionally relax, find inspiration, and collaborate informally. Nevertheless, the Millennials would expect to have a central office to meet up with their colleagues regularly (op. cit.).

Based on the fact that different generations have different needs at the workplace, there are some main workplace factors to be considered. Since the space reflects to the accomplishments of the Traditionals, the key factors for them are: hierarchical structure, boundaries, relationships, division of labour, rank, status, and authority. The Boomers expect to have a feeling as being part of the whole organisation. Therefore, the key factors for the Boomers are:

teaming, collaborative areas, private offices, a technology-ready training area, and a centralised knowledge centre (op. cit.).

The Gen Xers wish that the space supports their personal expressions. To meet this need, the following criteria are noted to be fundamental for them: personalised and mobile workstations, open and accessible leadership team areas, flexible and tech-ready multipurpose rooms. As mentioned previously, the Millennials desire to have a comfort workplace and for them the key factors are: personalised workstation design, visual display, tech environment with wireless network, fluid space and workstations, and fun open collaborative space (op. cit.).

In near future, the Generation Z will come as a part of the work life and will change the workplace based on their needs. Until then, the Millennials will have greater influence since they will have a larger share at the workplace (op. cit.).

4.3.2 Flexible Office Creating a Flexible Workplace

Susana Gomez from the world-known company Kellogg's (2010), showed a playful idea of a flexible workplace. Having more than 30 000 employees, Kellogg's is dedicated to create quality products to make a healthier world. Kellogg's made a project to reduce costs and complexity, to consolidate their best workplace position, and to find a "win-win" situation for the company itself and for its employees. (Gomez, 2010)

The Kellogg's approach to flexible work is called K Work. The idea behind K Work is that every worker may choose the best space for each activity to work in. The objectives of this approach are to encourage the workers to work on the move, to promote the work life balance, and to develop the Kellogg's position as "the Great Place to Work" (op. cit.).

Kellogg's presents an idea of a space solution which has similarities with previous factors presented in section 4.3.1. The principles listed are: space menu, sustainable, shared workplaces, be flexible, and be mobile. Kellogg's calls this solution as K Office and it is pictured as a playground concept. A

playground has same features as their concepts such as: meeting, concentrating, relaxing, investigating, exploring, team working, meditating and having privacy. Based on these facts, Kellogg's enriched workplace would consist of phone box, creative room, library, flexible area, informal meeting room, and meeting rooms (op. cit.).

As many other companies, Kellogg's is going green as well. The intention is to be recyclable and use recyclable materials, to have effective electricity management, to clean and collect, and to use "no paper" philosophy (op. cit.)

4.4 Added Value of Facility Management and Performance Management

As mentioned earlier in this chapter, Added Value of Facility Management and Performance Management were considered as the most challenging topics for the authors. However, a brief overview of these topics is given to make sure that their value will not be underestimated when new modules for the FM curriculum are designed.

4.4.1 Added Value of Facility Management

Per Anker Jensen (2010), from Technical University of Denmark, participated in the joint session in EFMC 2010 where the discussion dealt with the Added Value of Facility Management to Business Performance. (Jensen, 2010)

Jensen introduced a paper of the research done by the EuroFM Research Network group that had members from Finland, Norway, the Netherlands, Denmark, Switzerland and, the UK. The group members were both professionals from Facility Management field and other related academic backgrounds. Their corporate aim was to clarify what is Added Value of Facility Management, and to find how the Added Value of Facility Management is measured (op. cit.).

According to Jensen (2010), the Added Value is often seen related to cost reduction, even though they have a completely different meaning. Coherently,

cost reduction has been focused since the financial crisis has been affecting the business. In the Facility Management field, cost reduction is often related with outsourcing which has been a strong trend in the field for the past 15 years and still is as noticed in section 4.2 (op.cit.).

The Added Value associates with costs in a way that it may increase even if the costs would decrease. The Added Value is often seen as a change in customer satisfaction. To add value in Facility Management field, the development of new knowledge and competences are needed whereas the research and development skills will become fundamental (op.cit.).

Jensen (2010) showed a Facility Management Value Map which is a conceptual framework that explains the various ways of how Facility Management can create value. Facility Management is able to create value for the core business as well as for the multiple stakeholders such us owners, staff, customers, and society. In addition, the Value Map shows the inputs and outputs, the core businesses and the surroundings of Facility Management (op. cit.).

Finding a measurement tool for the Added Value has been tricky especially in the field of Facility Management. Jensen (2010) presents an example of LEGO Corporation that found specific ways to measure their contribution to the core business as value add. They have took the value creation as part of their five strategic focus areas and the aim is to receive at least five percent of value add every year. The value equation that LEGO Corporation uses is: Volume times Quality times Flexibility divided by Cost; in which Volume represent the services delivered; Quality is the user perceived quality measured; Flexibility includes the number of not standardised services delivered; and Cost covers the total cost of providing services (op.cit.).

Jensen (2010) points out eight perspectives of Facility Management and the Added Value:

- The concept of Added Value focuses on the strategic aspects of FM
- The focus has changed from an economical value towards a more holistic value concept
- FM value;
    - is a result of linking input and throughput to output

    - is multi-dimensional
    - has relationship value
    - is subjective
    - depends on conditions
- FM value research requires both qualitative and quantitative research methods

The research, done by the EuroFM members, shows that the Added Value of Facility Management is combined with other current trends on the field. There are Facility Management organisations that develop measures of how much their activity add value. This witnesses that facility managers are broad-minded and wish to have mutual language with the top management (op.cit.).

4.4.2 Performance Management

Performance Management was briefly dealt with earlier in this chapter in section 4.2.3 together with Outsourcing. The topic was studied in the Research Symposium of EFMC 2010 from where the following information has been compiled from.

Performance Measuring

In her paper, Bailey, (2010, 1) states that use of an appropriate performance measurement system enhances an organisation's ability to demonstrate accountability of its Facilities Management support services, and provide services which meet customer expectations and requirements. In fact, use of performance targets is increasing in service operations functions, including Facility Management. Since these services are overheads, there is continual pressure to reduce resource input whilst providing innovative service delivery (Bailey, 2010, 1).

Facility Managers are normally responsible for operation and maintenance of local authority property assets. However, due to ongoing funding constraints, resources will reduce over time. Therefore, to achieve the so called value for money, service management will require an understanding of the performance

measures to conduct the following tasks: manage the operation; know if performance targets have been reached; integrate performance measurement throughout the organisation; and understand the stakeholders and service outcomes (Rantanen et al. 2007, presented in the work of Bailey, 2010, 2).

Benchmarking the Business Performance

According to Matzdorf (2010, 1), Facilities Management performance is often measured in space utilisation and space cost in United Kingdom's higher education institutions. He tells that a new approach uses the Return On Investment (ROI) concept of income generation to highlight space performance at building and department level (Matzdorf, 2010, 1).

Unfortunately, for many estates and governmental professions, value for money translates into a term of low cost. Public sector Facility Management faces a common dilemma that results from an overreliance on the wrong performance metrics for organisations' built assets. As Price has stated (2007), using cost per unit of area as a dominant measure can encourage retention of too much low-quality estate (Matzdorf, 2010, 1) Despite the widespread criticism of this narrow focus on cost benchmarking, yet the public sector Facility Management appears to be slow in moving away from this paradigm (Price & Clark, 2009, presented in the work of Matzdorf, 2010,1).

Sapri and Pitt (2005), presented in the work of Matzdorf (2010, 2), state that it is important to have systems to measure the effect of the Facility Management functions on an organisation's core business together with the systems that measure Facility Management's own performance (Matzdorf, 2010, 2).

One well established technique is Data Envelopment Analysis (DEA) which has been extensively developed and used in economics. DEA has now become a popular tool for benchmarking, since it gives far more flexibility in comparing multiple ratios (op.cit. 4). DEA is an approach to relative efficiency measurement when there are multiple incommensurate inputs and outputs. In addition, it can be used to compare ratios of outputs to inputs, such as staff satisfaction, occupation efficiency, design efficiency, or profit (op.cit. 3).

Performance-Based-Specifications (PBS) and Performance-Based-Contracts (PBC)

In his paper, Shohet (2010, 1) presents Performance-Based-Specifications (PBS) and Performance-Based-Contracts (PBC) as some alternative means to attain for outsourcing of maintenance. He states that traditional maintenance contracts are simple in their structure and implementation since they are using the unit price system and prescriptive specifications. This manner reduces the flexibility of the procurement and limits the possibilities of the contractor to improve the in-sight operation. Furthermore, in this type of contract, the management often faces difficulties such as poor performance of the buildings and ineffective contract management (Shohet, 2010, 1).

Performance-Based-Specifications (PBS) and Performance-Based-Contracts (PBC) on the other hand offer an outline for systematic transfer of facilities between different contracts as well as a platform for management of the contract, and the elimination of change-orders. In the construction performance concept, the demands of the buildings are specified according to the outcomes of the process rather than according to prescribed detail of activities. The specification concept allows concentrating in the outcomes and leaves flexibility for the contactor and the designer of the service (Shohet, 2010, 1-2). Performance-Based-Contracts are based on the four main principles: Performance model; Preventive maintenance and rehabilitation model; Pricing model; and Risk sharing model (Cheng & Lu, 2008; Damnjanovic & Zhang, 2008; Lungtigheid et al. 2007; presented in the work of Shohet, 2010, 2).

5 SUGGESTIONS FOR THE CURRICULUM

5.1 Topic suggestions for the curriculum

The degree programme has already greatly improved since the authors started their studies in autumn 2006. The newest curriculum includes some of the most current topics of the Facility Management field such as Sustainability,

Environmental Issues and Space Management. Nevertheless, there are still some improvements and augmentations to be done.

The degree programme should solely concentrate on Facility Management instead of Hospitality Management as supported by the professionals met at the conference. Therefore, the studies should be more concrete and specialised in the field of Facility Management rather than having small portions of many different fields.

Students need to learn topical subjects of the field in order to become competitive professionals. Therefore, topics such as Performance, Risk and Cost Management, as well as Outsourcing, and Workplace Design and Management should be added to the curriculum. Moreover, deeper studies regarding Sustainability and Environmental Issues, such as Energy Management, would be highly essential, as these subjects are and will be very topical and important in the field.

Generally, an overall request from Facility Management students, resulting from the conference experience, is better connection with real life issues in the professional field. In addition, more projects and case studies with existing companies and organisations would be useful.

Guest lecturers working in the field of Facility Management are very welcome by the students as well. The lectures by the guest lecturers are still remembered as most rewarding.

The world is expecting talented and innovative students to become new professionals to improve and develop the Facility Management business. Yet, some students may feel uncertain to have the capabilities for that even after four years of studies. This is why real life situations and experiences are necessary for the students to gain confidence and know-how of the field already during the studies.

5.2 Conference as a part of the curriculum

As mentioned previously, all the students who participated to this conference, including the organisers of the study trip, warmly recommend EFMC to all the

Facility Management students. It is a great pity that so many students missed this marvellous opportunity as the whole experience is difficult to describe in words. Therefore, if EFMC would not become a mandatory part of the curriculum, it should at least become more accessible to the students by spreading the information of it and enabling the participation in it.

For possible future study trips to EFMC, the organisers should put more emphasis on the promotion of the study trip showing all the benefits from this experience. On the other hand, JUA could offer more financial and educational support in order to actualise students' involvement in the conference.

One of the useful ways to participate in EFMC is the Students' Poster Competition as it is free of charge for the students and it brings them plenty of visibility and offers a very awarding learning experience. However, poster competitors are not able to take part in other parts of the conference especially if they are successful in the competition and manage to get into the final round. Students with a sufficient background knowledge and experience of projects and research in the field could participate in the Research Symposium besides the Business Conference. Furthermore, JUA could consider forming an own stand at the exhibition where students could act as the representatives of the degree programme in Facility Management in order to receive visibility for both the students and the University.

In the present curriculum of the degree programme in Facility Management, the third year of studies is entirely consisting elective courses chosen by the students. Therefore, third year would be a suitable time for the students to take specialised studies of the field, participate in EFMC and do part or entire practical training, possibly in a practical training placement found at the conference. In fact, two of the JUA students who participated in the Students' Poster Competition were offered practical training placements, which is another evidence of the amazing opportunities that EFMC can offer. Although EFMC is beneficial for all the students, it is helpful to have sufficient background of the field before participating in the conference in order to gain the best experience of it.

As useful and awarding it would be for the Facility Management students that a study trip to EFMC would become annual, it would also be very difficult to

realise mostly due to the financial issues. This is why sponsorships, alliances and cooperations with other organisations and companies become increasingly important for the universities as well.

A EuroFM representative suggested finding sponsors and defining the reasons why students would come and what exactly they would do in EFMC. Moreover, it should be defined how the professionals can benefit from the students as there should be mutual benefits. These could be for instance internship placements, joining of future employees and employers, exchanging new ideas and expansion of business to other countries.

As mention previously, early cooperation between students and professionals is what the students wish to have more during their studies. It has been notified that the conference is a great place to gain this type of experiences. This is an area that surely needs to be improved and developed in the curriculum but it would definitely be very worthwhile.

6 CONCLUSION

At the time of writing, it was one year ago when the authors decided to make a Bachelor's Thesis of a challenging but yet very interesting topic. After all the needed practicalities, a study trip with a group of Facility Management students was conducted to participate in European Facility Management Conference 2010 held in Madrid, Spain. The objectives were to define the current and future topics of Facility Management field as well as to experience the conference itself to determine its usefulness for the students.

The main topics of EFMC 2010 were dealt with in the results section of this thesis. Sustainability, Workplace Design and Management, Outsourcing, Performance Management and Added Value of Facility Management are all current issues of the field. They should be taught to Facility Management students to make them competitive professionals. Therefore, these subjects should be implemented in the curriculum of the degree programme.

The questionnaire sent to the participants after the study trip was used to gather feedback from the trip and the conference. This resulted in some improvement suggestions for the development of the curriculum. Based on the results of the questionnaire as well as the actual experience at the conference, EFMC is undoubtedly seen as a highly beneficial experience for all the Facility Management students. Therefore, it should to be added into the curriculum, if not as mandatory but at least as optional for the students interested in gaining this type of professional experience.

Even though the results of the study trip and the conference were very positive, there are still plenty of improvements and adjustments to be made in the curriculum and probably in whole JUA in order to receive the fullest advantage of them. For instance, ways of how to actually implement design and update modules and courses to deal with the most current topics of the Facility Management field should be covered. In addition, realising annual participation in EFMC for the students can also be tricky mostly due to financial issues. Therefore contacts with companies, organisations and associations of the field become important for possible sponsorships and partnerships.

The remaining challenges are not impossible to overcome. However, to solve them, active participation by both students and lecturers is needed. The authors certainly hope there will be those who are interested in continuing this process as the experience received from EFMC was something very special that all the Facility Management students should experience as well.

Overall, the authors are highly satisfied with results found at the EFMC, with the outcome of the study trip as well as the whole Bachelor's Thesis itself. The conference was successful in every sense, as a vast amount of current information of the field was collected, numerous interesting professionals were met, many companies and organisations of the field were familiarised with, and plenty of visibility and attention from the other delegates of the conference was received. In other words, the goals set in the beginning of the thesis were achieved; the current topics of the Facility Management field were defined and whether EFMC is beneficial for the students was definitely determined. Therefore, the authors could not be any more content with the outcome of the whole thesis.

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APPENDICES

Appendix 1.

Questions to the participants

How do you think both the study trip and the conference were organised?

→ any improvement suggestions?

What did you receive/achieve from the trip/conference:

→ benefits, results, ideas, contacts..?

Would you recommend it to other students? Why/why not?

Based on your experiences during the conference, would you change/add something in/to our degree programme? What/how?

What was the best/most important part/subject of the conference to you?

In your opinion, in which year would be the best time for students to participate in the conference? Why?

Feedback 1

- How do you think both the study trip and the conference were organised?

Study trip was organized very nicely and it was organized. We had everything we needed arranged: hotels and flight booked, schedule made. We had enough time to have fun, before we started concentrating on conference.

The conference overcame all of my expectations. It was great and I've learned a lot.

→ any improvement suggestions?

--

• What did you receive/achieve from the trip/conference:

→ benefits, results, ideas, contacts..?

First of all, I brought a lot of information about the field of my studies. I got much better idea about Facility Management, and unfortunately noticed a lot of minuses in our educational process.

Plus, I got 12 visit cards from different company`s representatives.

• Would you recommend it to other students? Why/why not?

This is a kind of event our students must attend, if they want to learn latest trends about our profession from professionals.

• Based on your experiences during the conference, would you change/add something in/to our degree programme? What/how?

I would add more studies concerning technical sciences, engineering, electricity and energy consumption, budgeting issues involved in the processes. It would be great to learn have a deeper knowledge of subjects. We need to have international guest lecturers more often.

Also real computer programs used in real working life would be great to learn. Maybe English degree programme needs to be divided into several less general programmes. It is better to know one field well, either then a bit about everything.

• What was the best/most important part/subject of the conference to you?

FM Trends

• In your opinion, in which year would be the best time for students to participate in the conference? Why?

Third year is good. Students must have enough of FM background knowledge to keep up with the conference.

Feedback 2

How do you think both the study trip and the conference were organised?

→ any improvement suggestions?

It was very good for first year student I would like to see more students come with and learn with each others.

What did you receive/achieve from the trip/conference:

→ benefits, results, ideas, contacts..?

I understand more deeply about Facility management and I got specific area to learn more in the future. It also helps me to learn more about the FMcompanies in real working life.

Would you recommend it to other students? Why/why not?

Yes ! this is the best chance to learn and exchange ideas for the students.

Based on your experiences during the conference, would you change/add something in/to our degree programme? What/how?

I hope we can have more possibility to study different eara about FM ,like design and useful technology for project or other stuffs in our degree programme(this is very important for the FM development) we could also have some course with the engineer students. I learn from EFMAC is we are not only use the knowlodge of management but also use more technology to manage. Even we don't have enough professional FM teacher in our school but we can also make full use of the teaching resourse in our school (like to study some architecture or logistic).

What was the best/most important part/subject of the conference to you?

The business session. (real case of FM)

In your opinion, in which year would be the best time for students to participate in the conference? Why?

If the students want to participate it's good for all(1-4year)because they can learn the latest update of FM and get different experience from EFMAC.

Feedback 3

How do you think both the study trip and the conference were organised?

→ any improvement suggestions?

The trip to Madrid was a well organised, thanks to the Irene and Kristina. They have booked flights and also well situated hotel for good price. Adn I've spent such a grat week in Madrid ☺

What did you receive/achieve from the trip/conference:

→ benefits, results, ideas, contacts..?

From the conference i'd achived a better look what's the Facility managemnet is, how doest it work in a reall life and also I've been talked to the very interesting people from the field of Facility mnanagement. Also I recieved a few contacts.

Would you recommend it to other students? Why/why not?

Definitelly. I think is a good chance for better understanding all of the processes and work which is done by the Facility managers. Also for a meeting new and important people, which may help a student in their future.

Based on your experiences during the conference, would you change/add something in/to our degree programme? What/how?

Maybe I would suggest to add this kind of conferencees as an obligatory excurzion of the Facility management program.

What was the best/most important part/subject of the conference to you?

For me as a participant in the Poster competition , was the most important part of the conference poster competition- presentation of mine poster.

I really liked the Research part of the Conference. The most interesting presentation for me was about the Saving energy in a public buildings.

In your opinion, in which year would be the best time for students to participate in the conference? Why?

I think, the students of the 2nd year of the program, in the first semester. They'll achieved a good knowlidges from the presentations on a conference and better ideas for their studies.

Feedback 4

How do you think both the study trip and the conference were organized?

In my opinion I think the trip was organized very well! I had great time in Madrid, the hotel location was wonderful and everything went very well! Just one little thing to mention is a bit of luck information at the beginning.(dates, flights, place to stay) There was few things which I did not like at the conference, the poster competition (it was not poster competition but research competition) and second thing I did not like the time change during the conference!(there was mass in the participation time)

→ any improvement suggestions?

What did you receive/achieve from the trip/conference:

I spent very nice weekend in Spain!!!! The conference give me a chance to meet and talk with various kind of people from all around the world. I got few important contact for my future career, and also I really enjoy some of the conference topics (energy efficiency, space management,..)

→ benefits, results, ideas, contacts..?

Would you recommend it to other students? Why/why not?

I definitely recommend the trip to the other students. The conference is a huge opportunity to learn, meet and speak with people, or in the best way to find y future job!

Based on your experiences during the conference, would you change/add something in/to our degree programme? What/how?

I suggest learning more about the space management, and also little bit more research related subjects. (Example like make your own research in school, in hotels, ….)

What was the best/most important part/subject of the conference to you?

I like the part about the energy efficiency and space management”

In your opinion, in which year would be the best time for students to participate in the conference? Why?

I think, the 3rd year would be the best! the first year student have luck of information about the facility management.

Appendix 2.

EFMC Budget estimation 27th May – 3rd June 2010

Flights	**250€** (205,85€-269,65€) round trip HEL-MAD / person
Hotels	500€/room/2pax (486€, Tryp Gran Via (Gran Via 25)
	per person 243,00€
Hostels	266€/room/2pax (266€, Pop Hostel (Espiritu Santo Nº18))
	per person 133,00€
Flights + hotel	750€/room/2pax (747,67€, Hostal Oxum (Calle Hortaleza 31))
	per person 373,84€
	870€/room/2pax (872,02€, Tryp Gran Via (Gran Via 25)
	per person 436,01€
	900€/room/2pax (910,55€, Hotel Regente (Mesonero Romanos, 9))
	per person 455,28€
EFMC- conference fee	245€/person
Public Transportation	24€/7 days/person (Tourist Travel Pass, http://www.madridcard.com/en/PreciosAT.aspx)
Eating	appr. 30€/day/person (rough estimation based on the price rate)
	appr. 200€/7days/pers. (rough estimation based on the price rate)
Total	At its cheapest appr. **842,84€/per student** (incl. conference)
	At its cheapest appr. **597,84€/per student** (excl. conference)

Appendix 3.


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