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RICS Strategic Facilities Management

Case Studies - Series 4

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RICS Strategic Facilities Management

Case Studies – Series 4

Report for Royal Institution of Chartered Surveyors

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Foreword



The world of Facilities Management is dynamic and evolving. We are seeing rapid progress in technology, social aspirations, and our work environments. The need for FM professionals to innovate, adapt and deliver value has never been greater.

The fourth in this series of RICS case studies demonstrates that more and more organisations are recognising the importance of the built environment to their core business. This is often highlighted by the Facilities Management (FM) challenges these organisations face.

The diversity of these challenges is demonstrated by the sample of case studies included here – ranging from the need to maintain delivery of the FM service with reduced funding, to improving customer experiences to ensure competitiveness, and to improving health and safety in international schools.

The case studies show that while FM is becoming an established discipline, the challenges faced by organisations are often unique to them. There are generic industry solutions to FM problems but getting the right strategic approach to deal with an organisation's specific situation is key to success. The importance of truly understanding the core values and objectives of the organisation is fundamental to delivering successful outcomes. In addition, transparency and trust between service provider and stakeholder is often central to establishing that strategic approach.

It is clear that, as FM professionals, we must work together to systematically identify mutual priorities and challenges and deal with them in a transparent way that identifies motive, responsibility and accountability.

Whilst many of the challenges we face are complex, a strong strategy, generated and applied within an environment that promotes transparency and trust, allows for objectives to be both clearly established and, ultimately, successfully delivered.

Once again, these case studies demonstrate the role of the Facilities Manager as a communicator. Great communication is key to ensuring FM is recognised as delivering strategic business outcomes.

Hannah Davis MRICS

Associate Director, Faithful+Gould

Member of RICS Facilities Management Professional Group Board

1.0 FM brand delivery: How an FM provider has helped a national museum to maintain environmental and comfort controls for world class collections



The issues

Nearly 40 million people visit England's national museums and galleries each year.¹ As well as being hugely popular visitor attractions, museums are important centres for scholarship and research, enriching lives and educating people in equal measure.

England's national museums (such as the British Museum, Tate Modern and National Gallery – three of the world's five most visited museums) are funded directly by the Department for Culture, Media and Sport (DCMS),² but there is also a vast network of specialist and regional museums, run by charities, local authorities and educational establishments, many of which receive public funding from the National Lottery. Much of this funding is made to ensure that national museums and galleries provide free entry to their permanent collections – indeed,

since universal free access was introduced in December 2001, visits to national museums and galleries in England have increased by 158% to 2011/12.

In the period from 2001 to 2012, visits to national museums in London that used to charge for entrance went up by 150% and, outside London, by 191%. National Museums Liverpool saw an increase of 348% in visitors.

Despite increased attendance, since 2010, as a result of the UK Government's spending review, museums across the UK have experienced an unprecedented level of cuts in public funding, with local authority and national museums particularly badly hit.³

Cuts of 5% in the 2013 spending review were imposed on top of an average of 20% cuts (more in real terms) already endured by museums.⁴ The Museums Association's survey of budget cuts to museums between 2011 and 2014 revealed that, in November 2014, 43% of respondents had experienced a budget cut of more than 10% in the previous year, and 9% of respondents reduced access to sites, on top of 7% in 2013 and 22% of respondents in 2012.

By 2016, national museums in England may have had their Government funding cut by almost 30%.

1 www.gov.uk/government/publications/2010-to-2015-government-policy-museums-and-galleries/2010-to-2015-government-policy-museums-and-galleries

2 www.gov.uk/government/organisations/department-for-culture-media-sport

3 www.museumsassociation.org/download?id=1123548

4 www.museumsassociation.org/campaigns/funding-cuts/fighting-the-cuts

Strategic approach

Cuts to funding are putting considerable pressure⁵ on many museums to introduce charges, to maintain the high costs of buildings and infrastructure. However, the Government expects museums to build on their own fundraising measures through the cultivation of a broad range of donors, business supporters, trusts and foundations, and in order to promote this, it announced in 2010 that museums could access their reserves (i.e. money raised through legacies and endowments) to use for capital projects. The release of reserves, said the DCMS, would “help to reinforce the financial resilience of the sector”.⁶

Another way the Government has encouraged public sector organisations to optimise the services they deliver is in the adoption of output-based contracts, focusing on paying for a deliverable, as opposed to a fixed service.

According to the UK’s Department for Health,⁷ these contracts represent ‘a shift in focus from activities to results, and from how a programme operates to the good it accomplishes’. The previous Coalition Government’s ‘payment by results’ approach, for example, represented a drive for better value in public services, and aimed to ‘build more accountability into the system – creating a direct financial incentive to focus on what works, encouraging providers to find better ways of delivering services’.⁸

The FM provider, Integral, contributed to the research paper, ‘Partnering for outcomes’⁹ published by Workplace Law in 2013. As part of the research, work carried out by Integral with National Museums of Liverpool was cited, asserting that “*Outcome based contracts exist where the client pays for the realisation of a business outcome, such as optimal working temperatures and humidity levels being maintained in an art gallery.*”

The following case study looks at the impact of this partnership agreement in more depth.



Image source: tornadoflight / Shutterstock.com

5 www.independent.co.uk/arts-entertainment/art/news/museums-and-galleries-across-uk-planning-to-charge-entry-fees-amid-funding-cuts-10411329.html

6 www.gov.uk/government/uploads/system/uploads/attachment_data/file/77780/Redmond_NML.pdf

7 ‘An Approach To Outcome-Based Commissioning and Contracting’, Andrew Kerslake, Care services Improvement Partnership, 2010

8 www.nao.org.uk/wp-content/uploads/2015/06/Outcome-based-payment-schemes-governments-use-of-payment-by-results.pdf

9 Partnering for Outcomes: Workplace Law, 2013



INTEGRAL



Case study

National Museums of Liverpool

National Museums Liverpool (NML) is a group of museums and galleries, located around Merseyside, attracting more than 2.7 million visitors in 2014. NML is an executive non-departmental public body, sponsored by the Department for Culture, Media and Sport.

Its collections are among the most important and varied in Europe, containing everything from Impressionist paintings and rare beetles, to a lifejacket from the Titanic. Members of the public have free access to these collections, which cover a range of venues across Merseyside, including the Walker Art Gallery, Merseyside Maritime Museum, World Museum, Lady Lever Art Gallery, Museum of Liverpool and International Slavery Museum.

The organisation's mission is to be the world's leading example of an inclusive museum service, which strives to provide an excellent service in return for public funding. Its values and beliefs are:

- Museums are fundamentally educational in purpose.
- Places for ideas and dialogue that use collections to inspire people.
- The power of museums to help promote good and active citizenship, and to act as agents of social change: museums change lives.
- The importance of sustainable development and recognition that NML has a role to play in the conservation and protection of the built and natural environment.
- A drive to seek out new opportunities and innovative ways of working, to keep the public offer fresh, relevant, challenging and competitive.

In terms of estates management, the disparate museum venues must cater to the needs of visitors and staff, whilst caring for its fabulously diverse and often sensitive collections.

Explains Chris Bailey, Estates Manager for National Museums Liverpool:

“Front of house in a museum is not always what people think it is; front of house is not just the gallery, but rather the conservation and sensitive presentation of the collection itself.

“There are often conflicting environmental requirements between our collection and visitors, so from an estate point of view, we have to strive to get that balance right most of the time. For example, heating for a visitor could mean drying for a painting, which risks damage. Understanding these differences is the beginning of the challenge.



Image source: 1: Jacek Wojnarowski / Shutterstock.com
2: Brendan Howard / Shutterstock.com
3: Arena Photo UK / Shutterstock.com



Image source: Paul J Martin / Shutterstock.com

“The museum collections have a variety of requirements, with some requiring everything to be kept super dry, and other areas where high humidity is required. Getting service partners to understand and empathise was a really big challenge. We identified that our historic contractor relationship didn’t engage with that because it wasn’t seen to be their responsibility. It wasn’t part of what they had to do. In short, they reacted to requests, and carried out engineering functions as dictated, without fully engaging with the overall requirement.”

In 2009, following a competitive tendering and interview process, Integral – the largest independently owned mechanical, electrical and fabric property maintenance business in the UK – was awarded a comprehensive planned and reactive mechanical maintenance contract across NML’s estate.

Integral UK Ltd provides both PPM and reactive maintenance services to more than 1,600 clients in 40,000 locations, and has a reputation of delivering engineering excellence and a strong partnership culture, providing a range of maintenance solutions individually tailored to suit clients’ needs.

The FM services provided by Integral to NML include:

- bespoke planned maintenance programmes;
- a resident supervisor and engineering team;
- 24/7 reactive maintenance service; and
- 24/7 helpdesk service.

Challenges

NML has some of the most interesting and important buildings in the region in which to show off its magnificent collections. However, the historical nature of these buildings has presented a challenge when it comes to energy and carbon management.

The mechanical and electrical infrastructure of the estate, given the age, nature and use of the different venues, had been altered and added-to over the past 40 to 50 years, leading to (in places) inefficient energy performance.

Compounding these issues, most of the buildings house valuable artwork and collections; evidence of the museum’s ability to manage the environments these are stored and displayed in is critical to NML in being able to accept loans from other institutions. NML therefore needed an FM partner that understood the importance of these requirements, and could be relied upon to ensure the conditions required didn’t impact negatively on the NML’s current and future collections.

Prior to the implementation of the Integral contract, the mechanical HVAC services were quite disparate – with many different contracts or contractors – forcing the senior maintenance team to manage every single one of these processes and contractors individually. This proved quite expensive, very difficult to manage, and made it difficult to make any improvements.



Image source: Debu55y / Shutterstock.com

Says Bailey:

“In our historic contractual HVAC arrangement, the main contractor had three engineers permanently based on site who carried out routine, PPM and reactive mechanical maintenance.

“They had no responsibility to carry out any of the specialist engineering, regarding chilling, controls, BMS (Building Management Systems), or water management. Therefore each time they hit a problem outside their technical scope they would report back to the client for further guidance, who in turn would engage a whole host of specialists, each reporting back to the client only. Environmental controls were being achieved, but primarily most systems were being manually controlled and altered, leading to a higher risk of failure and poor energy management. This arrangement led to disagreements regarding responsibility lines within the HVAC plant, and rarely worked to NML’s benefit.”

In 2009, NML’s Estate Management Department decided that it was better to use the expertise of one multi-skilled HVAC contractor to guide and control the entire system, passing over engineering control and decision-making to a suitable contractor, but working in close relationship with the client’s Estates and Conservation departments.

NML wanted a contractor that would take all its incoming services, such as water, electricity and gas, and deliver an output standard environment to suit both visitors and the collections. This requirement would be required 24 hours a day, 365 days a year.

To ensure the providers were fully aware of what they were taking on, the shortlisted contractors were briefed openly on the equipment, buildings and requirements, and shown around the buildings, to fairly see conditions of plant and controls for themselves, before submitting costs.

After a further formal exercise and interview process, Integral was awarded the contract, with the key message from day one being to maintain an open dialogue and work collaboratively to improve service delivery and efficiencies. This was especially important because the agreement was for a comprehensive contract. This obliged Integral to maintain all plant equipment, react to NML maintenance calls 24 hours a day, 365 days a year, and provide all parts, excluding only what was identified at the beginning of the contract as ‘known defective equipment’. This defective equipment record was a requirement of the contract identified by the incoming contractor, and recorded in what became known as the black file.

According to Mark Whittaker, Business Development Manager at Integral UK, under the terms of the contract, Integral was taking on the risk of repairing much of the equipment as well as maintaining it, “But there was a big hole in our knowledge when taking over that contract on the condition and functionality of much of the equipment”.

Therefore, during the early stages of the contract, Integral consulted the handover documents and checked any discrepancies by having its engineering team carry out full condition surveys of mechanical equipment across the NML estate. With this they were able to develop much more accurate asset registers from the original tendered assets.



Image source: JuliusKielaitis / Shutterstock.com

These detailed reports and accompanying photographs continue to be of invaluable use to NML in being able to assess equipment lifecycles, and to predict future expenditure / budget requirements. In addition, they have been able to use this data to prioritise their capital expenditure projects.

Maintenance delivery

Prior to Integral's appointment, the previous contractor had utilised separate engineers for each building, which meant a gap in knowledge would occur should a particular engineer leave or go on holiday. There was also limited out of hours and weekend cover for a lot of the equipment, despite the fact that some of the buildings have 24 hour environmental control systems in place to preserve the precious collections.

One of the key aims of the contract was to limit the amount of reactive calls by implementing an effective planned preventative maintenance regime. This wasn't feasible overnight, however, as at the beginning of the contract Integral had to get to grips with the complexity of the estate, its HVAC installations and understand the buildings' various requirements. This meant that the level of reactive calls grew to about 40 a week in the early days, but over the past years has reduced steadily to just one or two a week. Better preventative servicing plans, increased knowledge and continuity have all contributed to this reduction, giving NML greater reliability, and Integral reduced costs from reactive calls.

In terms of reactive calls, the estates team now operates a central helpdesk where staff report faults that they see on a day-to-day basis, which are directed to the on-site engineers, with a support dialogue with NML's internal technical team. In parallel to this, Integral has introduced direct links to the BMS systems and via their appointed remote monitoring centre this system automatically reports serious failures, so for instance if there is a boiler failure, an autotext will be sent through the system for the engineers to investigate immediately, often before NML is even aware of the problem. Remote diagnosis can often lead to a remote repair, or early knowledge that a specialist engineer is required for chiller works or BMS, therefore making more efficient use of the resource.

Unlike the previous system, where service providers sometimes operated in isolation, knowledge is shared between engineers throughout the entire estate to ensure continuity of service, and this is also passed through to the estates team at NML.

Explains Peter Beatham, Contract Manager for Integral:

"What we've always tried to do is keep all the knowledge moving at all times so that not just the Integral engineers have the knowledge of the plant, but our client has this knowledge as well."

Energy management

The most significant energy use in NML's buildings comes from the 'Base Load', which maintains the required levels of environmental control, 24 hours a day throughout the buildings for the protection of artefacts. Integral's site-based engineering team manages the environmental conditions and BMS Controls Strategy at all NML sites.

Says Beatham:

"On another of our contracts, for a data management company, we set the temperature and humidity for the sensitive documentation that they've got to maintain in their warehouses. But that is a sealed environment. It's much more of a challenge in a museum context where you've got the footfall of so many people coming in and out of these galleries. You still have to maintain these environments, keep within target levels, monitor and make sure the readings are correct."

"One of the biggest issues we have is with the chillers – in fact, everything to do with chilling water – because it's the biggest expense in terms of maintenance. Chillers, in their design, are motors, energy guzzlers, and they vibrate, which can cause major problems. So chillers are the biggest plant issue."

As mentioned, one of the key issues within this contract is the fact that some of the buildings house valuable artwork and artefacts, so the team also manages the conditions in critical conservation and restoration areas.

NML's conservation department, for example, contains 15 climate-controlled studios, plus a purpose-designed close-controlled painting conservation studio. The work that goes on in that building is of the most sensitive nature, where conservators are restoring and conserving collection items that might be hundreds of years old.

Previously the environmental control system was entirely manual, which meant the running costs were enormous. That building now operates a BMS system, which both protects the priceless art and helps reduce energy costs.

Integral's team is given access to NML's museum standard environmental monitoring system, through which they monitor and report on environmental variations to the NML team and ensure the specific tight parameters concerning temperature and humidity conditions are achieved. This system is an excellent tool to make comparisons and improvement to the buildings' more engineering-focused BMS systems as well.

Evidence of the ability to manage these environments is essential to NML in being able to attract new exhibits. NML has a particular duty to report on the environmental conditions of the galleries its loans are displayed in, which must be adhered to extremely closely.

A British Standard exists that has been developed to help collecting organisations meet their responsibilities to establish and maintain environmental conditions that preserve cultural collections in their care for future use and enjoyment. PAS 198: 2012 is a specification for managing environmental conditions for collections, covering temperature, relative humidity, light and pollution, and also takes into account a move in the UK towards energy restraint, prompted by an international drive to reduce the use of fossil fuels.

The development of 'PAS 198 – Specification for managing environmental conditions for cultural collections' is in part a response to the statement issued by the UK National Museum Directors' Conference (2009) that:

"Museums need to approach long-term collections care in a way that does not require excessive use of energy, whilst recognising their duty of care to collections. There is general agreement that it is time to shift museums' policies for environmental control, loan conditions and the guidance given to them by architects and engineers from the prescription of close control of ambient conditions throughout buildings and exhibition galleries, to a more mutual understanding of the real conservation categories of objects, which have widely different requirements and may have been exposed to very different environmental conditions in the past."¹⁰

The general advice is that a museum space must reach very specific environmental parameters, and in order to meet these standards an auditable environmental monitoring system has been installed in every gallery on the estate, which records the levels of humidity and temperature in the more sensitive galleries and within the conservation studios.

Says Bailey:

"The environmental monitoring equipment accessed by our contractor is a very accurate system and we've recently developed a link directly to the BMS in two of our buildings to control the heating using conservation principles. We believe NML was the first to do this, although other institutions have latterly introduced something similar."

During the contract term, Integral has also worked collaboratively with NML to identify and manage the energy baseload throughout its sites. The FM company's engineering expertise helps NML manage and optimise its BMS systems, reduce energy consumption and ensure humidity and temperature targets are consistently achieved.

The partnership between NML and Integral helps both parties understand, manage and reduce energy consumption across the sites, and by doing so, reduce its carbon impact. This has resulted in NML being placed joint first in the UK Carbon Reduction National League Tables.

¹⁰ PAS 198:2012: Specification for managing environmental conditions for cultural collections

Further official recognition of the success of this partnership was demonstrated by the Museum of Liverpool winning the Carbon Champion Award at the Merseyside Environmental Awards 2012, as well as a nomination for an Energy Institute Award.¹¹

Partnership working

The contract with NML was extended in 2012 and 2014 and now operates as a collaborative gain-share arrangement, whereby the cost savings that have been achieved have been reinvested into capital projects, such as boiler installations.

The level of knowledge that is now available concerning the estate means that the team will know collectively when it needs to invest in boiler plants or other major equipment. This is usually discussed on an annual basis to determine ongoing major plant requirements. NML uses this developed knowledge to target its capital investments, to maintain and improve reliability, and further reduce energy consumption.

This also helps the NML meet the Government's directive to use capital in an intelligent way,¹² and continue to drive down running costs.

Says Mark Whittaker:

"We have worked with NML to develop an outcome specification and from there have been allowed the freedom to develop a maintenance strategy that can achieve the outcomes."

Lessons learnt

According to both NML and Integral, good communication has been a key element in the success of the contract.

Bailey concludes:

"We always knew this was a pretty big gamble but we had to get a company that would work with us. From the beginning of the contract, Mark brought his regional manager along to the bid meeting, and said, 'This is Peter, he'll be with you for the duration of the contract,' and to this day we meet as often as we need to and we still talk to one another a couple of times a week."

Running such a complex and demanding estate requires dealing with myriad pieces of information, and the beauty of this partnership is how well this information is discussed in a way that is easy to digest and that reflects an 'open walls approach'.

Says Beatham:

"You have to have flexibility in your approach, because not one size fits all. This contract has so many different elements and each has its own way to maintain and deliver services."

"We've spent time learning the hard way, so we don't just go right at an issue, but research the subject, understand it and then offer a solution."



Image source: JuliusKielaitis / Shutterstock.com

¹¹ www.liverpoolmuseums.org.uk/about/awards/

¹² www.gov.uk/government/uploads/system/uploads/attachment_data/file/77725/Endowments_paper_20101208.pdf

2.0 FM brand delivery: The strategic role of FM in enabling a top international school in Thailand to keep its students safe and secure



Image source: Harrow International School, Bangkok - Prospectus [www.harrowsschool.ac.th/]

The issues

There are over 100 International Schools in Thailand, offering education in English and other languages such as French, German, Chinese, Japanese, and Korean. These schools provide for both local and international students at all school ages, from kindergarten to seniors – two to 18 years old. International schools generally offer a variety of curriculums based on the British, American or International Baccalaureate, and upon graduation, students are able to progress to leading universities all over the world.

The International Schools Association of Thailand (ISAT)¹ recommends that prospective students or their parents check a school's individual accreditations or credential evaluation, which ensures a basic level of quality in the education delivered by a school.

Some, but not all, accreditations cover both academic excellence and best practices of schools, including such aspects as safety on campus, a growing issue considering the typical demographic of a wealthy and established international school (which has shifted considerably in the last couple of decades, away from mainly expatriate foreigners, and towards wealthy local families, who wish for their children to have a good international education, in a safe and privileged environment).

In Thailand, however, safety is generally considered to be of low priority compared with other educational issues, and there is a lack of effective policy.² School safety is often overlooked due to factors such as cost, efficiency, organisational strain, and bureaucracy. Although this is of most concern within the Thai state education sector, it has been proven³ that the way to ensure effective school safety for both public and private schools in Thailand is to create an effective management programme to address safety. The United Nations Children's Fund⁴ argues that 'children have the right to learn in a safe and healthy environment', and thus, governments have a clear obligation to provide such environments through appropriate frameworks, guidance and legislation.

Thailand's political focus over the past decade has been firmly on economic development, without parallel upgrades to the education system. Thailand faces a shortage of skilled labour, a lack of innovation, and an education system

1 <http://isat.or.th/welcome-international-schools-association-thailand>

2 <http://sgo.sagepub.com/content/3/2/2158244013489985>

3 <http://sgo.sagepub.com/content/3/2/2158244013489985>

4 www.unicef.org/publications/files/A_Human_Rights_Based_Approach_to_Education_for_All.pdf



Image source: Harrow International School, Bangkok - Prospectus [www.harrowschool.ac.th/]

that has continuously failed to deliver quality schooling,⁵ resulting in a persistent focus on raising academic, vocational, and technical skills, but a lower prioritisation of issues such as school safety. For example, in 2009, the Thai Ministry of Education (MoE) launched an economic stimulus package for education, consisting of nine billion baht (equivalent to 176 million pounds),⁶ yet nowhere within 11 key projects, including teacher development, school quality, and school improvement, was there specific mention of promoting safety, or of developing and managing the school environment with regard to the health and safety of pupils.

Strategic approach

According to Mathew Rees, Director of Operations at Harrow International School, Bangkok, there is a growing awareness that health and safety at international schools is a priority.

“There is a body of legislation in Asia relating to health and safety,” he explains, *“but the availability, quality and accreditation of training is not as readily available as it is in the UK.”*

Mathew explains that whilst the School meets local standards and complies with local legislation relating to health and safety, it has also aimed to achieve, where possible, the standards of European and/or UK health and safety legislation.

Tim Chappell, Campus Manager at Harrow Bangkok, explains his views:

“Due to my involvement in a number of health and safety activities in terms of school trips, I became engaged in starting a group called the Outdoor Forum for South East Asian Schools (OFFSEAS),⁷ which focuses on health and safety for outdoor educators and improving standards with third party providers.”

In the four years since it was set up, the group has grown from five schools attending the first meeting, to upwards of 100 delegates attending a week-long conference at United World College (UWC) in May 2016.

From meetings through that group, it became clear that health and safety was a concern of many school leaders, but managing this in an overseas setting was complex. While many of these schools had appointed a Facilities Manager, health and safety wasn't a top priority.

5 Hewison K. (2012) Education and knowledge in Thailand: The quality controversy. *Journal of Contemporary Asia*, 42, 141-3.

6 http://planipolis.iiep.unesco.org/upload/Thailand/Thailand_InvestmentPlans-SP2_2010-2012.pdf

7 www.uwcsea.edu.sg/centre/OFFSEAS-16



HARROW
INTERNATIONAL SCHOOL
BANGKOK

Image source: Harrow International School, Bangkok - Prospectus
[www.harrowschool.ac.th/]

Case study

Harrow International School, Bangkok

Harrow International School, Bangkok⁸ was established in 1998, and is now mature and thriving with 1,510 students based on a 35 acre site in North Bangkok, Thailand. The large, green campus has academic and sports facilities, and following the model of the original UK Harrow School, Harrow Bangkok also incorporates boarding facilities, which currently has total capacity for 260 students, both male and female.

This case study focuses on the role of effective Facilities Management in delivering first class educational and residential facilities, enabling the School to be safe, healthy and secure, thereby enhancing the teaching and learning experience for students and staff.

‘Leadership for a better world’ – the vision for Harrow, Bangkok – is defined by six leadership attributes that its students are encouraged to demonstrate during their time at the School:

1. Contributing positively to the community.
2. Applying knowledge with compassion.
3. Solving problems collaboratively.
4. Solving problems creatively.
5. Making just choices.
6. Facing challenges with determination.

These values are embedded into all aspects of School life, including the kinds of learning experiences teachers prepare for students in lessons, co-curricular opportunities (known as ‘Leadership in Action’), the House System and the students’ experiences in boarding.

In providing an integrated learning experience, designed to nurture students’ leadership attributes, whether in an explicit and obvious manner or quietly behind the scenes, the School supports its students’ ability to influence their future world for the better. In so doing, they follow in the footsteps of past Harrovians who, ‘through determination, respect and adaptability, overcame challenging circumstances and gave us a better world’.⁹

In order to better serve its students in an increasingly competitive educational market, the provision of outstanding facilities, staff and support processes is paramount.

The difference between good and great FM for schools means the difference between a student having a learning experience that they quickly forget, and one that stays with them for many years to come, which they can draw on and use to enhance their lives and those of others.

⁸ www.harrowschool.ac.th/

⁹ www.harrowschool.ac.th/Harrow-Philosophy.aspx

Campus facilities

Harrow Bangkok operates on a spacious campus beside a picturesque lake, with separate air conditioned buildings housing the Early Years Centre, Infants School, the Pre Prep School, Prep School and Senior School (accounting for Years 9 to 11 and Sixth Form) and ranging in age from 18 months to 18 years. Specialist purpose-built buildings accommodate Boarding, the Science faculty, the Arts faculty, the Sports Department, Library, Dining Centre and the Rayleigh Centre (equivalent to the UK's Sixth Form). Staff accommodation, comprising of 40 town-home properties and the Head Master's residence, are also located on site.

Sporting facilities include a large air-conditioned sports hall, a gymnastics hall, extensive fields with natural grass surfaces, a swimming pool, a fitness room, a climbing (bouldering) wall, six recently refurbished ATP-standard floodlit tennis courts and a 2,100m² multi-disciplinary athletics complex.

Harrow Bangkok has its own lake, used for a variety of water sports and activities, including sailing, kayaking, wake boarding and water skiing, dragon boat racing, adventure races and raft challenges.

Included in the garden campus are safe play areas conforming to EN standards 1176 and 1177¹⁰ for the younger pupils and a number of presentation and performance spaces within each phase of the school.

PCS

Harrow Bangkok has grown in both student numbers and facilities since it opened in 2003 on its current site. This growth, coupled with further expansion and renovation of facilities, has necessitated a new approach towards facilities management. In consultation with the outsourced FM provider, PCS, the FM structure was reviewed to enable it to meet the operational and strategic challenges of an expanding campus.

PCS has been delivering integrated facility services to Harrow School for over ten years. It manages the maintenance team and all third party contractors involving works in mechanical, electrical, lifts, CCTV system and swimming pool maintenance. Within the standard scope of services, it also covers janitorial, security, ground maintenance (including landscape and football pitch maintenance) and pest control.

The outsourced provider also assists with more specialist roles, such as reprographics and residential management; in fact, all elements integral to creating a nurturing environment for students, staff and the community.

Health and safety

Leading by example in health and safety is a key priority for Harrow Bangkok and, as such, considerable investment in staff training, equipment and resources, as well as structural change within the FM team, was implemented to allow for improved leadership and management of health and safety.

It was decided to appoint Tim Chappell as Campus Manager, given his background in health and safety, crisis management and overseeing risk assessment of school trips and expeditions. Explains Director of Operations, Mathew Rees:

"It was important to us that we had the right management structure in place to make effective and sustainable changes. Tim's appointment was a significant step forward in enabling a culture of change to be created, giving authority to our vision. We settled on the NEBOSH course in Occupational Health and Safety as a means of developing a body of accredited knowledge to apply to the campus."

As part of this process, the operations team reviewed how health and safety was managed throughout the school, bringing in independent consultants to run health and safety training and assessments, some of whom were accredited by RoSPA in the UK.

At leadership level, the Director of Operations and Campus Manager completed the International General Certificate in Occupational Health and Safety, accredited by NEBOSH,¹¹ both obtaining distinction level, followed by the International Diploma Course, as they continued their professional development.

Although this necessitated completing a demanding set of courses, the School is of the opinion that gaining accreditation from a professional body allowed for a more robust and effective management approach to promoting cultural change. The School also aims to have all teaching staff trained in Emergency First response by August 2016.

Tim Chappell, Campus Manager, states:

"This type of training may be seen as an unnecessary cost by some organisations, but at Harrow we believe this investment is vital, providing staff with a skill and demonstrating our commitment to the health and safety of our students, staff and parents."

All new teachers attend a three-day crisis management course, where they deal with multiple scenarios and learn how to manage unexpected situations, ranging from missing persons and vehicle accidents to common injuries, all of which highlight what control measures could be used to prevent or reduce the risk of incidents from occurring.

¹⁰ www.rospa.com/play-safety/advice/en1176-equipment-standard/

¹¹ www.internationalworkplace.com/course/certification/nebosh

A daily inspection routine has also been implemented within the teams for all the different areas in the school that are considered higher risk, taking into account aspects such as specialist equipment and high traffic areas.

However, changing the health and safety culture within the school community is the single biggest challenge the FM department has faced. Although attitudes to health and safety in Thailand are improving, the overall safety culture is still developing compared to that of Europe and the United States.

Although still in its early stages, the School is making considerable inroads into developing a more positive health and safety culture, which it is achieving in two ways – through staff (teacher and administrative) engagement in training and process implementation, and through embracing the education of partner organisations such as PCS and allowing more opportunities for basic training at all levels.

The School has also adopted UK Health and Safety practices and regulations wherever practicable. In order to change the somewhat relaxed attitude towards health and safety prevalent in many South East Asian countries, Harrow has persevered to demonstrate management commitment with newly created positions, training, sharing of information and via the establishment of an effective Health and Safety committee.

Improvements are made quickly when hazards are reported, and staff are informed as changes are made as a direct result of their input, thus reinforcing positive risk management and safe behaviour.

Given that the School's FM provider employs over 100 local staff for janitorial, M&E, gardening, security and logistics

services, Harrow worked closely with PCS to bring together their vision of safe working practices, identification of hazards and reporting, with that of the provider's.

Says Chappell:

"There's a long process involved, when you look at where we've started from. Regular meetings now take place between Harrow and the FM provider to plan strategy to achieve cultural change and enhance awareness – and it's working! This involves ongoing partnership, education and training, ensuring that all employees understand expectations, provision of appropriate tools and PPE, and implementing reporting procedures to highlight hazards."

Due to the size of the campus, the number of buildings, and the age of the students, generic risk assessments are not appropriate.

Risk assessments have been reviewed and created for each building and set of activities. These assessments identified the need for new policies covering security, fleet management, contractors on site, traffic and circulation, playgrounds, catering facilities and sports facilities. Health and Safety surveys and tours were introduced to ensure new standards were being met. The FM provider was involved in this process at every step.

Says Chappell:

"It was important the FM provider understood the needs of the children and school, and how these changed depending on their age. The School also needed to understand how the FM provider operated to identify where daily operations came into contact with our children through lessons and co-curricular activities."



Image source: Harrow International School, Bangkok - Prospectus [www.harrow.school.ac.th/]

Expansion programme

The School is also actively engaged in an expansion programme to its buildings and is now entering its second phase of development. Having already constructed two new boarding houses, a central services building, a Sixth Form Centre and an extension to its Early Years Centre, Harrow is now embarking on building a Creative Performing Art Centre, a new Early Years Centre, Lower School Library and a Senior School renovation programme.

Managing the day-to-day operations of the campus whilst constructing new facilities has proven challenging given the potential impact on teaching and learning, but the School remains on track to deliver high grade facilities.

Mathew Rees comments:

“Many health and safety hazards faced by a School can often be eliminated in the design and planning stages of construction, such as eradicating slip and trip hazards for all by ensuring consistent levels of flooring throughout the structures, and selecting age-appropriate materials and finishes.

“Furthermore, Schools have to pay close attention to safeguarding throughout the construction process by screening contractors and their staff carefully, ensuring that contractors follow strict guidelines regarding site management, and that all stakeholders are effectively communicated with.

“There are two key areas to manage; one being the day-to-day operation of the campus, and the other in managing the construction projects that are ongoing on the campus to support the growth of the school. This means working with two very different teams to make sure the emphasis remains on promoting good health and safety practice.

“A 200-strong team of contractors are present on site every day to carry out day-to-day janitorial, mechanic and electrical duties, as well as around 250 contractors who are engaged in work on the School’s expansion. A real challenge in the heart of Asia.”

Within a relatively short period, attitudes towards health and safety at Harrow have improved, resulting in a healthier and safer environment, as staff at all levels embrace the change in culture, and a greater regard towards the safety of all School stakeholders – staff, pupils, contractors and visitors – has become the norm.

Lessons learnt

Both Rees and Chappell believe that the greatest challenge has been the investment in time, as opposed to cost, needed to meet everyone’s very disparate needs.

Says Rees:

“When I first took over this role I made the assumption that our staff would have a basic understanding of health and safety, but here in Thailand that isn’t necessarily the case. Even those staff brought up in the more health and safety-conscious West were taking a common-sense, rather than an informed approach, to compliance.”

Once this need for a cultural change in all aspects of health and safety was identified, it was important that everyone – from the junior maintenance staff to the Board of Governors – supported the process. The results have been very positive throughout the school.

Concludes Chappell:

“We completed a report for the Board of Governors at the end of the last academic year about health and safety performance, including what initiatives we’d implemented within the last 12 months and further improvements to be addressed. The strong support from our Board has enabled us to move the School forward in many areas and allowed us to lead by example through specialisation and the sharing of good practice.”

To this end, Harrow Bangkok is hosting a regional conference in Health and Safety in June 2016 to promote and share good practice throughout the industry.

3.0 FM brand delivery: Utilising FM and asset management to enable an English Borough Council to self-fund services



Image source: Oscar Johns / Shutterstock.com

The issues

There are 353 local authorities in England, employing approximately half a million people. These provide a wide range of services to residents in their jurisdictions, including:

- services such as planning and housing;
- sports and leisure facilities;
- the provision of social care; and
- encouraging economic growth through Local Enterprise Partnerships and schemes such as City Deals and Enterprise Zones.¹

Local authorities can choose whether to deliver the majority of these services themselves, or commission them from other public bodies, the voluntary sector, or the private sector.

Central government grants form the majority of local authorities' income. However, Government funding to local authorities has fallen substantially since 2010-11,² in line with country-wide objectives to reduce the levels of UK debt.³ The 2010 Spending Review set out a 26% reduction by 2014-15 in the local government departmental expenditure limit (which excludes funding for schools and benefits claimants via local authorities), and an extra 1% reduction in 2014-15 was announced in the 2013 Budget. The 2013 spending round included a further 10% reduction in Council budgets for 2015-16. To give a typical example, according to research by the Joseph Roundtree Foundation,⁴ Newcastle lost 22% of its funding over the period, while Coventry and Milton Keynes lost 14 and 13% respectively.

Demand for these now under-funded services has increased, creating additional expenditure pressures. In very broad terms, cuts in funding and the pressure to stretch expenditure have contributed roughly equally to the overall budget gap.

1 www.nao.org.uk/wp-content/uploads/2015/08/A-Short-Guide-to-the-NAOs-work-on-local-authorities2.pdf

2 www.nao.org.uk/wp-content/uploads/2014/11/Financial-sustainability-of-local-authorities-20141.pdf

3 www.bbc.co.uk/news/business-25944653

4 www.jrf.org.uk/report/cost-cuts-impact-local-government-and-poorer-communities

An analysis by the Local Government Authority (LGA) ahead of the November 2015 Spending Review predicted that Councils would face almost £10bn of cost pressures by 2020.

The Spending Review, which was published on 25 November 2015,⁵ sets out how the Government intends to invest in priority public services and deliver the £20bn of further savings required to eliminate Britain's deficit by 2019/20,⁶ and calculates that government policies, to be implemented over the next five years, will cost councils £6.3bn by 2020.

This is on top of the extra £3.6bn of 'business as usual' pressures to maintain services at their current level based on demand, and inflation pressures on local government services.

However, local authorities are not totally dependent on central government funding, and can also generate income locally, from Council tax, sales fees and charges. For the year 2014-15, UK Councils generated £20.3bn from council tax (budget for 2014-15) and £10.9bn from sales, fees and charges (outturn for 2013-14).⁷

Local authorities can also generate income through their investment activities, but these sums are relatively minor in terms of income for the sector as a whole.

Strategic approach

Local government is the most efficient part of the public sector, with Councils becoming increasingly inventive in managing costs through collective purchasing, shared services and smarter contract management.

According to the LGA report 'Local Government and the spending review'⁸ Councils' appetite for innovation has been a major contributing factor to the success in tackling cuts.

"Working on their own and in partnership with other councils and organisations," it says, "councils have repeatedly demonstrated their ability to do things differently, save money and improve the services on which residents rely."

In the Local Government Association's November 2015 spending review submission paper, 'Spending Smarter: A Shared Commitment',⁹ it was pointed out that:

"Councils and their partners in the public, private and voluntary sectors have developed specific proposals that show how they could capitalise on growth prospects and use public spending more effectively to meet local needs. In the negotiations that follow, we urge Government departments to match the ambitions of places and support the delivery of ambitious deals proposed by local partners."

This includes the introduction of the Cities and Local Government Devolution Bill, which argues the radical devolution of power within England on the grounds that it is essential to growing the economy, raising productivity and improving services while driving efficiencies.

Central Government has also implemented some changes to provide local authorities with greater flexibility¹⁰ and incentives to increase their income. For example, the funding system has been changed to allow local authorities to keep a share of locally raised business rates, so for example a Council can now retain 40% of business rates.

However, future income from business rates is uncertain and, so far, local authorities have tended to concentrate on reducing their income, as opposed to increasing revenue, as the main way of addressing reductions in government funding.

One of the continued suggestions from central to local government has been to review the assets owned by councils with a view to developing strategies to maximise income or minimise costs.¹¹

For example, the Government announced in 2015 that, subject to certain conditions and limits, receipts of sales of capital assets will be allowed to be used to fund one-off costs of service transformation.

The following case study focuses on how one Borough Council is working in partnership with its Facilities Management partner with the aim of increasing the revenue raised through its property portfolio to help make it entirely self-funding by 2020.



5 www.gov.uk/government/topical-events/autumn-statement-and-spending-review-2015

6 www.gov.uk/government/news/spending-review-launched-by-chancellor

7 www.nao.org.uk/wp-content/uploads/2015/08/A-Short-Guide-to-the-NAOs-work-on-local-authorities2.pdf

8 www.local.gov.uk/documents/10180/6869714/L15-252+Spending+Review_WEB_new.pdf/3101e509-1e22-4c26-91ac-8fd8a953aba5

9 www.local.gov.uk/spending-review

10 www.nao.org.uk/report/the-impact-funding-reductions-local-authorities/

11 www.local.gov.uk/documents/10180/5854661/Under+pressure.pdf/0c864f60-8e34-442a-8ed7-9037b9c59b46

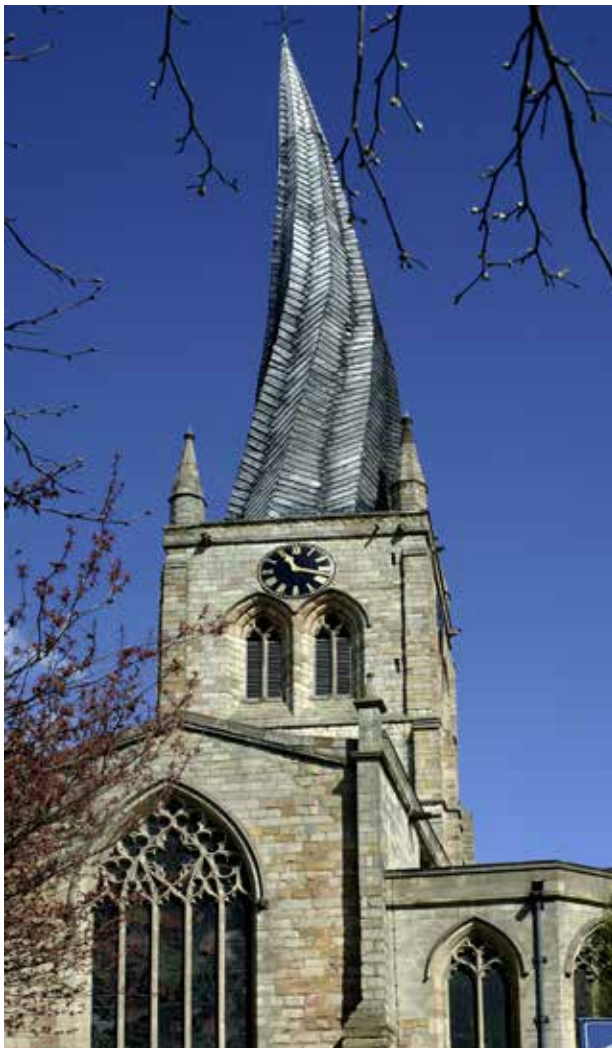


CHESTERFIELD
BOROUGH COUNCIL

Case study

Chesterfield Borough Council

Chesterfield Borough Council¹² is a district council serving a population of just over 100,000 people. The second largest settlement in Derbyshire (with Derby City being the largest) it covers a relatively compact and mainly urban area in the centre of England, approximately 150 miles from London.



The Borough has a far lower percentage of owner-occupiers than in Derbyshire and a considerably higher proportion of social housing than in Derbyshire, East Midlands and England as a whole.

Faced with the challenges of running a Borough that has a higher than average level of deprivation, the Council is focused on keeping services running when a policy of government austerity measures has seen Central Government funding in the Borough decrease significantly, with projected funding to reduce to zero by 2020.

The Council is therefore planning its medium-term financial strategy to be entirely self-sufficient by 2020. Chesterfield is quite unique in that it already self-funds around 50% of the cost of delivering its services by creating revenue from assets such as car parking and investment properties.

Chesterfield Council has an extensive property portfolio which, excluding housing stock, is valued at £115m, with £77m being investment property, and the remainder being operational property.

Its investment portfolio is made up of predominantly office, industrial and retail premises. In total there are approximately 700 lettable units, with tenants including High Street brands such as Boots, Tesco and WH Smith, and small local traders.

The investment portfolio generates in excess of £6m in annual rent, which is used to fund the Council's other services. For the size of the authority, this level of self-generated rental income is substantial in comparison to other authorities.

With such a large portfolio, the Council decided to outsource its property management service and, following a bidding process in October 2010, entered into a ten-year partnership with Kier Group for the delivery of asset management and hard FM.

Kier Group plc describes itself as a 'leading property, residential, construction and services group which invests in, builds, maintains and renews the places where we work, live and play'. It operates across a range of sectors including defence, education, housing, industrials, power, transport and utilities.

¹² www.chesterfield.gov.uk

Says James Drury, Executive Director at Chesterfield Borough Council:

“Councils are being faced with a range of austerity options, which can include shutting things down, contracting stuff out and driving more efficiency.”

“We’re doing a range of those things, but in addition, working with Kier and the expertise that they bring, puts us in a positive and fairly unusual position to look at ways our properties can help us generate income that will enable us to keep our services open to our customers, despite significant drops in grants.”

Kier works in long-term partnership with over 100 public sector clients across the UK. According to Peter Slater, Head of Asset Management:

“This means we have a unique understanding of the public sector and the needs of local communities through our established network of clients, suppliers and partners.”

Following the commencement of the contract in 2010, 34 council staff were transferred over to Kier under the Transfer of Undertakings (Protection of Employment) Regulations (TUPE), with the basis for the outsourcing agreement being an 8% saving in service delivery and an improved hard FM service. The contract reached the halfway point in October 2015.

Asset reviews

Within the first year of the contract, Kier was commissioned to develop a corporate asset management plan – a strategic approach aimed at aligning the property portfolio with the needs of the Council and the citizens it serves.

The aim of the plan was to rationalise and improve the Council’s property portfolio by carrying out asset reviews of all the buildings – both investment properties and operational. Some of the properties hadn’t had a condition survey carried out for 15 years, so as part of its contractual target Kier was tasked to carry out a full condition survey of the council’s entire property stock within the first five years of the contract; a target which has now been met.

Explains Matt Sorby, Head of Contract at Chesterfield:

“With that information we can look at how much the property currently costs to run on an annual basis, how much it’s likely to cost in terms of maintenance moving forward, and what the liabilities are.”

“So for example we highlighted a number of properties where substantial costs would be incurred by retaining ownership of the building.”

On the investment portfolio side, any property found to be under-performing or requiring significant capital improvements, which did not show an increase in rental potential generated from the investment, was identified for sale.

Prior to this, a property was only considered for disposal once it became vacant. Shops in suburban housing estates, for example, were identified as poor yielding investments with limited rental growth, so most of these within the Chesterfield portfolio were earmarked for disposal.

A key performance indicator of the contract is that Kier will keep occupancy levels above 87%; pre-outsourcing these were at a constant 88-89% (based on rental potential). Actual levels of occupancy since the start of the contract have steadily increased from 89% to the current level of 94%, 5% above target.

This is only possible with streamlined partnership working between Kier and the Council’s internal departments such as its Economic Development Unit and internal Legal Unit. The three teams all understand the importance to the Council of the rental income stream, while also providing economic regeneration benefits to starter and developed companies moving into Chesterfield.

For those properties deemed too expensive to run, rather than just selling them off, ways of enhancing the sites are identified before they are marketed. The property teams work together to masterplan the sites, undertaking site investigations in order to minimise the level of risk to a developer and smooth the process for planning and sales.

Generating revenue

With an expectation that central government funding is likely to be cut further,¹³ the Council is continuing to look at ways of becoming more self-funding, and with advice from Kier is looking at utilising its capital receipts to purchase further investment property to generate annual rental income.

One site is already being developed that should generate a large capital receipt for the Council over the next two or three years, and that receipt could be used to acquire additional property investments, meaning it could yield a significant self-generating income stream for the council.

On the operational properties side, as with many local authorities, the service managers tended to have their own portfolios of properties which they managed and maintained. Following the contract change the corporate assessment management plan looked at how much each property cost to run on an annual basis, and how much it was likely to cost in terms of maintenance moving forward, and its liabilities. A number of properties were identified that would incur the Council substantial costs in retaining ownership of the building.

For example, one property called East Lodge was occupied by the Council’s groundsmen and drain clearing staff, and a review identified significant running costs and substantial maintenance over the course of the next ten years.

¹³ www.gov.uk/government/publications/spending-review-2015-a-country-that-lives-within-its-means

The recommendation was to relocate the landscape operators to the main Direct Labour Organisation (DLO) depot in a fit-for-purpose new build facility and co-locate offices within the main DLO offices. The cost of the new facility was £200,000, which was funded by the sale of the old landscape depot, which Kier sold for Chesterfield for a sum of £337K. This has now been redeveloped for housing by a local developer.

Says Sorby:

“We’ve been looking at the portfolio with a much more strategic long-term view than was done previously, and asking why actually we own these assets. Why does one team sit six miles away from the rest of their team? Why have we got a number of depots?”

Another success was with a housing office based in Staveley (seven miles from Chesterfield town centre), where the Council had a cashier desk and staff offering housing advice. This cost £30,000 a year to run and had quite substantial maintenance liabilities. Following a full asset review it was decided to move the cash transactions to a paying in machine at the Leisure Centre in Staveley and move the housing staff into other housing department offices. The sale of the former housing office raised £220K.

Hard FM services

Along with the asset reviews, the contract also calls for the delivery of hard FM services, covering the maintenance of the Council’s property portfolio. Kier has responsibility for managing every single contractor, which meant being entrusted with Council budgets as well as processes and procurement. Kier manages the Council’s appointed contractors and has responsibility for the 200+ contractors that work throughout the estate; covering everything from heating, air conditioning, plumbing services, electrical contractors and fire alarm testing.

This included the procurement of energy for the Council, which is now bought in bulk, and the subsequent reduction in the price per unit of gas and electricity has resulted in a much more competitive cost of energy.

Kier also oversees much of the statutory compliance for the Council, including compliance for electrical safety tests, legionella testing and air conditioning testing.

The maintenance side of the contract joins up with the operational review process, so it is easier for the Council to determine – from an asset management perspective – whether the Council should dispose of a building.



Image source: Oscar Johns / Shutterstock.com

Says Sorby:

“Because the FM team that carries out the condition surveys is often the same that is actually managing contracts and overseeing the repairs and maintenance on the buildings, we’ve got substantial knowledge of costings and which contractors we would use.

“This gives us key data as to how much that building is going to cost us in the future, and we can be confident of the costs that we’re putting into the condition surveys.”

The asset reviews and asset enhancement work created a substantial capital receipts programme. Because there was no dedicated disposals surveyor to deal with the backlog, Chesterfield decided this area could be outsourced and it has since been agreed that – working on a commission basis – Kier will operate a dedicated resource to deal with disposals.

Town Hall and other refurbishment projects

A number of projects have got underway as a result of the asset reviews. A feasibility study of the Council’s Town Hall, which is the main administrative building within the Borough, revealed that the Grade II listed building was vastly underutilised.

It was determined that, with better space planning and the removal of a number of walls, the building could be capable of seating an additional 200 staff. Kier was therefore commissioned to project manage the transformation of the building, with the idea being to move council staff from other leased buildings into the Town Hall. This would generate savings on both the rental costs of the other leased building, as well as ensuring that one building within the property portfolio could be sold.

Workplace efficiencies would also be created by ensuring that teams sit close to colleagues from other departments. The remaining surplus office space has been rented out.

This process began over a year ago when Kier identified a small area in the Town Hall basement the Council no longer used. Four agency advice centres were relocated into this space, with the rent generating an additional income to the Council. This has benefited the agencies as they can now share reception staff, meeting rooms, interview rooms and catering facilities. Meanwhile the council properties they previously occupied, which were in a poor state of repair, have been sold off, generating both maintenance savings and additional revenue.

Kier is now working closely with an adjoining local authority to relocate some of its services into the Town Hall, again bringing in further revenue. It is intended that the Town Hall will generate £200,000 in rental income, as well as create efficiencies from co-locating Council services together.



Image source: Oscar Johns / Shutterstock.com

According to James Drury, cost savings and efficiency are not the only positive results of this initiative. It has also had a positive impact for users of the Council's services, because residents and citizens of the borough can access a range of voluntary sector services within the one building.

He explains:

"This pulls together a range of voluntary sectors, which is better from a customer point of view, and also retains a link with the council but in a self-contained part of the building. So to me it's the best of both worlds."

"The most important thing is that from a customer and citizen point of view there has been great feedback from people who know where to come, can get that joined up service across the voluntary sector and this also then links into the council service as well, as and when appropriate."

Aside from the Town Hall, other initiatives to improve the Council's operational property have included the refurbishment of the Council's Revenues Hall to become the Council's Customer Service Centre. Previously the Council operated three separate receptions for Planning, Environmental Services and Revenues and Benefits enquiries. Kier undertook the capital works and project managed the refurbishment of what was a dreary cashier hall into a modern one-stop enquiry centre.

In addition, Chesterfield Market Hall – a Grade II listed building in the heart of the town centre – has been renovated. When an asset review revealed that income from the hall was diminishing as maintenance costs were increasing, it was decided to redevelop the building. On behalf of the Council, Kier Asset Management led the project from the client side. As a result, the building is totally transformed internally, with a reduced number of retail stalls and an increase in office accommodation.

The Market Hall now generates 60% more rental income than before, and has won two awards; the NFB¹⁴ Refurbishment of the Year and NABMA Best Small Indoor Market Hall.¹⁵

Lessons learnt

Both the Council and Kier share common aims and goals, and the service provider is viewed less as a subcontractor than a partner that is delivering certain elements of the Council's services.

Kier has the necessary expertise in asset management for the Council to rely on, and has demonstrated time and time again that it is able to support the Council in its corporate goals, and what it is aiming to achieve.

Selby says:

"Both parties look at things pragmatically and say, 'Well, we've got this issue; what suggestions have you got?' rather than saying, 'Sub-paragraph 12 of clause 13 in the contract says this', as ultimately it is about what is the best for Chesterfield."

"I honestly think I've looked at the contract about four times over the last five years and that was just to clarify something that both of us weren't sure about. The contract is put to one side and it's very much how can we work together to get a win-win solution for both parties."

Says Drury:

"From a council perspective, making this relationship work is absolutely critical to the future sustainability of our operating model and how we're going to keep delivering services."

"It is a lot to ask, but we've got confidence because of the relationship we've got and the results that Kier have delivered."

"We believe it is the right thing to do and we will be in the unusual position – for a Council – where we're generating sufficient income to subsidise the services of the residents of Chesterfield."



Image source: Oscar Johns / Shutterstock.com

14 www.builders.org.uk

15 www.nabma.com

4.0 FM brand delivery: Using a 'One Team' approach for FM excellence



The issues

One of the fundamental ingredients for a successful FM partnership is a relationship of trust between supplier and client; yet research has suggested that levels of client/supplier loyalty in the Facilities Management industry is lower than in any other sector.¹

The 2013 study by Business Services Growth, in partnership with the Brookside Group, found that providers in the FM industry are failing to adequately maintain and manage client relationships, with only 6% of clients considering their providers to be trusted advisors. Such 'trusted advisor' relationship levels are, on average, nearer to 25% in other industries.

The research also showed that almost a third (30%) of relationships were considered 'antagonistic' and a further 22% of respondents reported that they had no better than 'transactional' relationships with their suppliers.

Despite, or possibly because of, this lack of trust, clients and FM service providers see strategic partnering as the future. Such a relationship has been defined² as a package that includes management services, and where:

- the strategic importance of the purchase is high;
- there is long-term operational loyalty;
- close negotiations are used to select the service provider and to define specifications;
- there is a shared vision and mutual strategic goals for relationships; and
- extensive information-sharing is undertaken, including strategic information.

Research by Workplace Law in 2012³ found that improved reputation and goodwill are amongst the key benefits associated with high quality FM provision, as both clients and service providers agree that the key to delivering value is to continuously improve on service.

This is closely followed by the need to deliver a consistent service across sites or countries, which is difficult due to the nature of the many and varied services being delivered, and the fragmentation of the industry. Clearly there is a need for better joined-up thinking between service providers and clients to help create mutually-beneficial partnership relationships and a greater degree of trust.

¹ www.i-fm.net/news/fm-comes-bottom-for-loyalty

² Alternative models for the management of FM services: An empirical investigation: Tomi Ventovuori & Tero Lehtonen. *Journal of Corporate Real Estate* (2006)

³ Evaluating performance in FM 2012: Workplace Law

Strategic approach

Indeed, work has begun on forming an International Ethics Standards Coalition that will help align countries' working practices, to enable people in the global property industry to form relationships based on mutual trust and understanding. The draft consultation paper states:

"While numerous professional organisations have based their standards on common principles such as integrity, transparency and trustworthiness, there is no overarching standard to which all real estate and related professional organisations subscribe.

*"By creating the International Ethics Standard and establishing the global Coalition we can make sure professional ethics is even higher up the agenda and stimulate conversations about enhancing client confidence and public protection. This is a powerful and positive step for the property profession and for the many thousands of professional practitioners around the world."*⁴

An essential route to enhancing the client/supplier relationship is to address this issue of trust, which includes creating systems that enable greater transparency – particularly in the way that budgets are spent.

One of the biggest problems vendors involved in the delivery of contracted services face is a lack of control over cost. The age-old issue of the department purchasing the services being different to the department using the service has not gone away, and is made all the more challenging when providing integrated Facilities Management services across a number of countries and continents. There are differing ideas on the best strategic approach to take,⁵ with some favouring appointing a single, large multi-service provider, and others opting instead for a range of local players.

With the latter approach, clients can benefit from using suppliers with knowledge of the local culture and the regional supply chain, but there is a significant challenge to overcome when attempting to create any kind of continuity in terms of quality of service when multiple FM providers are operating across different time zones and languages.

Another important prerequisite for a successful FM partnership is for the FM supplier to reflect the brand values and principles⁶ of the client organisation, whether FM is delivered by an outsourced provider, an in-house team, or a combination of both.



4 <http://ies-coalition.org>

5 www.i-fm.net/international-fm-report

6 www.rics.org/uk/knowledge/research/research-reports/raising-the-bar-enhancing-the-strategic-role-of-facilities-management/



Case study

EMC

In 2015, the technology service provider, EMC, won a European award for its approach to Real Estate and Facilities Management (RE&F) across Europe, the Middle East and Africa in the EuroFM Partners Across Borders Awards.⁷ The awards, which were presented to the EMC FM team at a ceremony in Glasgow, Scotland, as part of the European Facility Management Conference (EFMC) were in recognition of a shift in service provider thinking. Instead of the disparate service providers seeing themselves as working alongside competitors for one client, the creation of a team culture has resulted in them feeling part of one business family – working together to reflect and enhance the client brand.

EMC⁸ is a global leader in information technology as a service, operating in 86 countries, with manufacturing plants in the US and Ireland. It occupies 132 buildings across 50 countries throughout Europe, the Middle East and Africa (EMEA), which support in excess of 12,000 people.

The EMEA Real Estate and Facilities function (RE&F) is led by Ken O'Mahony, Senior Director of EMEA for Global Real Estate and Facilities (GREF), who, with Bruce Barclay, Manager at EMEA Facilities Operations, manages more than 300 staff through several service providers: FMS (UK); VINCI (Southern Europe); and Facilicom, WISAG, CTA Services and REIWAG (Northern Europe).

EMC has a culture of outsourcing. The company's co-founder, Richard Egan (the 'E' in EMC), believed that the business wouldn't be successful without support from supply chain partners.

GREF's mission is to excel in the delivery of market-leading client service, through the constant drive for service excellence. Focused on continuous improvement, innovation and self-assessment, the EMEA business unit and its partners aim to provide safe, secure, great places to work that enhance the GREF brand and EMC business.

⁷ www.fm-world.co.uk/news/fm-industry-news/one-team-cross-border-strategy-wins-eurofm-award

⁸ www.EMC.com

One of EMC's core values is Customer Experience First. With this in mind, in June 2013 Bruce Barclay, whose background is in five-star hotels and resorts and property, was appointed to introduce the hospitality sector's culture and value principles into GREF's operations in EMEA, creating a 'One Team' approach to service delivery.

Prior to Barclay joining the company, O'Mahony had worked to bring all spending for the category of real estate and facilities under a global cost model. He aimed to prove that savings could be achieved with centralisation, which would improve buying power as well as provide useful data on why, for example, one office was more expensive to run than another.

The first step towards this was in achieving overall responsibility for the ownership of all spending aligned to real estate facilities. Equipped with this information, the RE&F department was able to show how much it was costing EMC to process invoices.

By consolidating this procedure, instead of processing thousands of invoices each month, each vendor would submit just one invoice per month, with every commodity clearly identified under the contract.

This common operating platform for Finance was extended into the company's approach into operational service delivery, and this fundamental shift in service delivery (termed 'Facilities-as-a-Service' (FaaS) by GREF Vice President, John Herrera) was introduced to provide the internal client with a predictable expense for a predictable outcome. The operating platform, to which all the service partners are aligned, ensures consistent systems, processes and standards across EMEA regions.

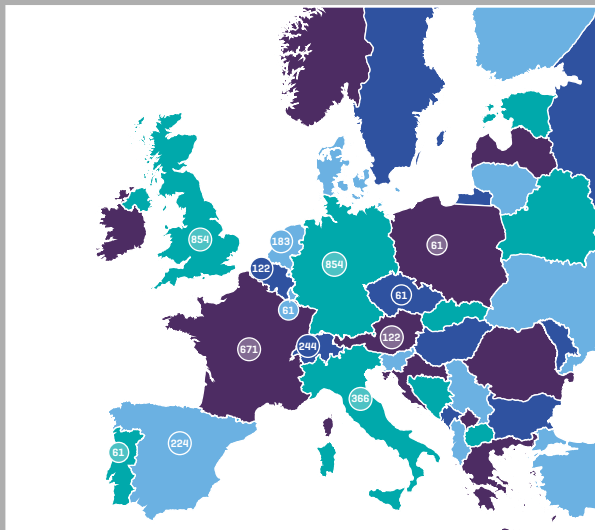
Once the financial costs had been successfully integrated, it was time to take a more unified approach to the delivery of FM services from the customer services side.

Explains O'Mahony:

"We asked ourselves how we were going to shape our branding so that even though competing companies were providing services in different locations, they were still providing all EMC employees with the same experience from our service provision. Although we're being represented by different companies, from our customers' perspective FM is provided by the business unit called 'Real Estate and Facilities'. And it has to look unified. So that's where the 'One Team' initiative came from."

Figure 1

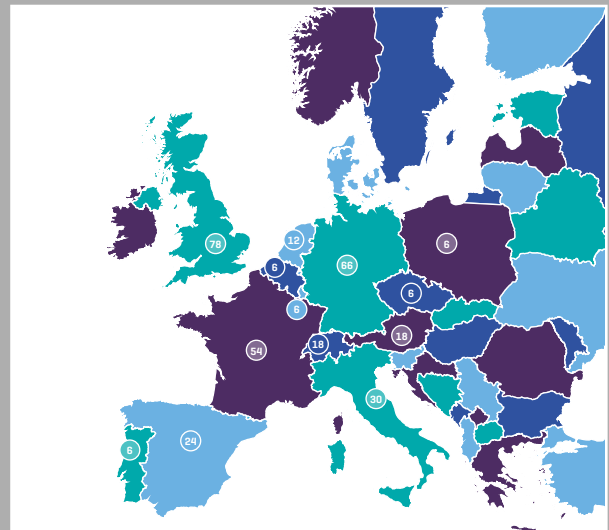
Invoicing costs before and after implementation of integrated facilities management



Example: Monthly FM invoice numbers in Europe before IFM = >3,900

Processing cost > \$195,000/month

(2008 indicative representation only)



Example: Monthly FM invoice numbers in Europe after IFM = <350

Processing cost > \$17,000/year

(2015 indicative representation only)

Source: EMC

Challenges

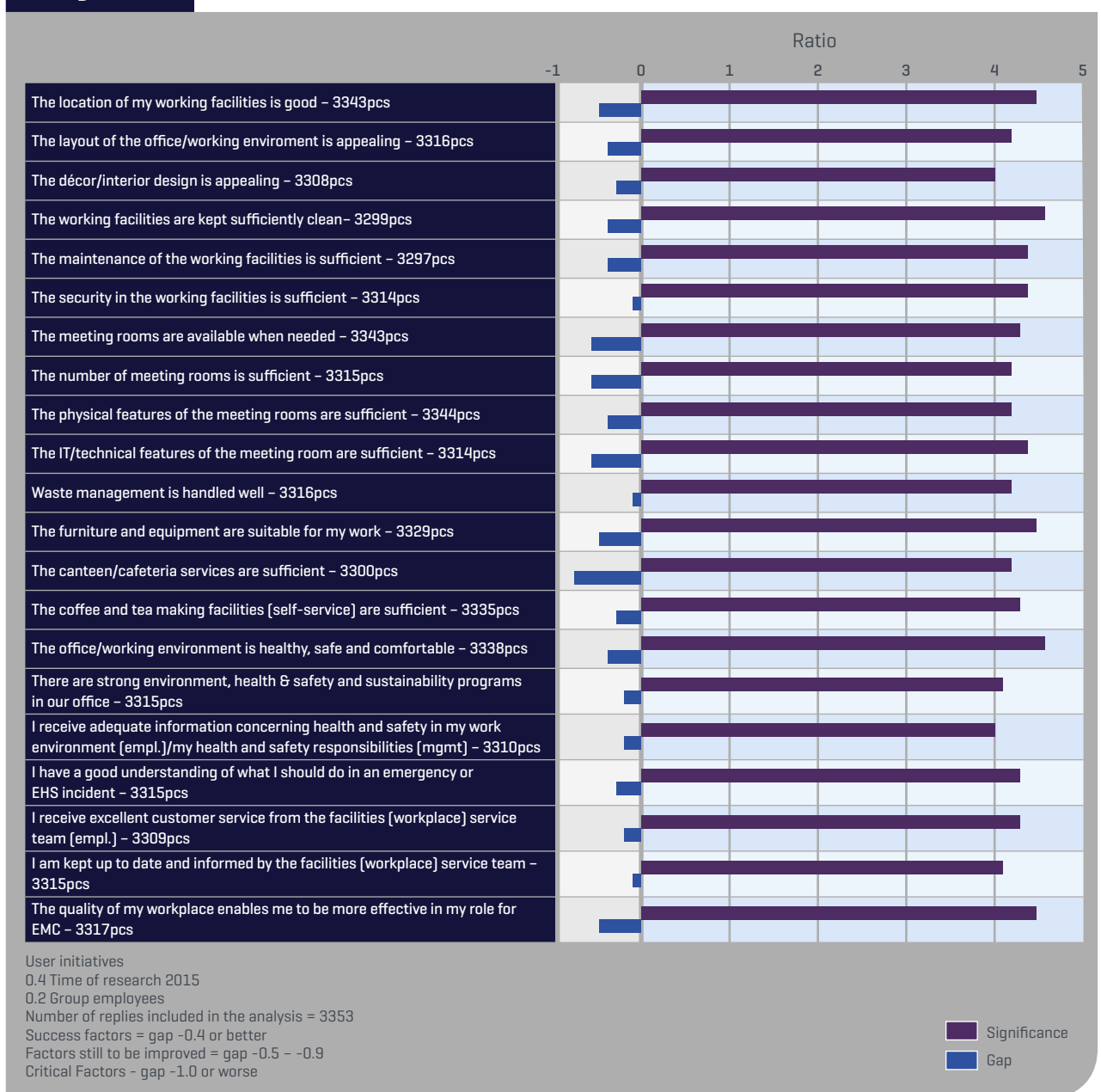
At the time, EMC was engaging individually with ten supply chain partners across EMEA, which created a silo approach in which there was a danger that RE&F delivery would appear disjointed.

The standard of service across the regions was good, but there was no alignment between service partners in different locations, and little sense of a unified EMEA FM business family that was part of a global business unit. Attention wasn't always focused on the customer experience.

The 'One Team' initiative was launched to address this shortfall, with the aim that by the end of 2014 the EMEA RE&F team would enjoy an improved culture of service excellence, innovation and sustainability. This would be achieved through trusted, industry-leading service teams and partnerships that delivered 'exceptional FM service and employee experiences'. This was a transformational shift in culture to partnership working across the business.

Barclay's background in hospitality brought with it a number of principles that could be applied to Facilities Management.

Figure 2 2015 employee satisfaction survey data



Source: EMC

Says Barclay:

“In the hotel industry, it’s in your DNA to understand the customer experience because it’s the lifeblood, and I see a correlation between that and the service delivery of facilities; essentially, to understand the customer experience when people come into the workplace. The core values of EMC fitted very nicely with the values we wished to apply to FM service delivery.”

Drawing on his knowledge of the hotel and leisure sectors’ use of customer surveys, one of Barclay’s first measures was to capture some robust data on customer satisfaction levels.

Surveys were sent out to both the senior management and the wider workforce to ascertain general satisfaction levels, with feedback on issues such as the quality of catering, the state of the washrooms, the availability of meeting rooms, and the quality of IT provision.

This gave the RE&F team some points of focus – so for instance, in response to reported difficulties with meeting room availability, they implemented meeting room booking software to manage the space in a better way. In this way, they identified what customers were finding frustrating in the workplace, and put in place proactive solutions to address the issues.

The survey is now an annual event, helping ensure that the RE&F team constantly captures accurate customer opinion to deliver a focused, appropriate and relevant service.

One Team initiative

The ‘One Team’ process was put into action through a series of workshops held by the EMEA RE&F leadership team, along with Alan Williams of ServiceBrandGlobal Ltd and Dr Alison Whybrow, an expert in organisational design and change management. The aim was to adapt the core EMC values into specific FM goals, and create an FM strategy and roadmap. Further workshops helped to understand the different personality types within the team, and how best they could work together, ultimately introducing the ‘One Team’ approach and operating platform.

To create a sense of one cross-border team, an FM summit was organised in Paris in April 2014 where 34 members of the EMEA RE&F team congregated to hear keynote speeches, participate in working sessions, and discuss the mission, roadmap and values of the One Team approach. The structure of the One Team operating platform was introduced, and the team came up with ideas as to how it would work.

Says O’Mahony:

“Several service partners acknowledged they were sceptical about the approach until that point. There were some suppliers that feared initially we were bringing them together to beat them down into competitive pricing, but actually we were putting them up for comparison to show what great looked like, and if great was achieved in say, Moscow, why couldn’t we do great everywhere?”

“And they really did transition from fear and scepticism to enjoyment and a team building experience.”

In the end the group experienced a real sense of belonging, togetherness and camaraderie, which, considering that the service partners are direct competitors, is encouraging. This was described later by EuroFM judges as ‘remarkable’ and ‘an amazing achievement.’

During the conference, delegates were encouraged to take photographs and video footage, which was subsequently edited to produce a conference video. This was then embedded into a global branding initiative and gradually disseminated throughout all sites so the One Team brand is visible on everything from email signatures to presentation templates across the EMEA regions.

This consistency was then extended into job roles and descriptions, so, for example, a corporate receptionist in London, England, would have the same job description as one in Frankfurt, Germany. The job profiles were rewritten to fit in with the FM team’s vision and values, and although these job descriptions were used by the service providers, it is testament to their commitment that they were enthusiastic about aligning them.

The team realised that, naturally, there would be some cultural differences between locations, and a corporate reception in London would not be exactly the same as one in Dubai. However, the way the visitors are greeted, and the importance of their arrival experience remains a priority, and so they focused on the areas that would remain the same, regardless of location.

In terms of using a global or local FM supply chain, Barclay is clear. Although he says he has considered engaging with one of the big players who lay claim to having a global presence, his logic is that, because EMC’s reach and jurisdiction is already so diverse, he would prefer to use an in-country or smaller regional supplier.

This means that, using the One Team model, the RE&F team continues to engage companies that are well established in local and regional markets and that have supply chain or procurement relationships that offer greater local buying power, as well as an understanding of local legislation and culture.

This approach has allowed the RE&F team to better respond to the needs of the business. As a technology company, EMC regularly acquires start-up ventures and other businesses. While change is constant, the consistent approach to RE&F across the world has enabled the company to integrate these acquisitions more efficiently and reduce risk.

Communication is an important part of maintaining momentum for the whole team, so an internal communication intranet system is made available through the firm's Community Portal, which provides access to common resources as well as providing a place to collaborate and share ideas (through blogs and forums, for example).

A local GREF newsletter has also been launched within each region, but with a common pan-EMEA theme, to update the teams about progress.

These initiatives mean that people from diverse locations and cultural backgrounds are engaging with each other and sharing ideas. One supplier in the UK, for example, was running an advanced energy management programme which has produced a substantive report on the success and the cost savings that they're making. This has subsequently been taken up by other partners across the EMEA. By using the internal software solution, 'Inside EMC', individual business units can create their own community portals where all members of the EMEA real estate and facilities team can join to access and share information.

This enables teams to share best practice, as well as examples of activities that other teams are doing.

Says Barclay:

"Everyone can see in real time where best practice or innovation is emerging. We have moved from ten partners when I arrived to 13 now. The facilities-as-a-service operating platform, and the systems and process that underpin it, allow us to identify best practice and innovations wherever they occur, and promote them across the entire platform in a very quick, very cost effective, resource-efficient manner so that collectively we are delivering that innovation EMEA-wide, and we're delivering that benefit to the business in a very effective way."

Following the 2014 summit in Paris, for instance, the different service partners expressed a desire to work together outside their contractual agreement to improve service delivery. A working group on energy management was set up, formed of experts from each service partner, to provide advice and recommendations to the core business.

The focus was on buying utilities, improving the procurement of renewable energy, and becoming more energy efficient. The group shared expertise from across their organisations and produced an energy best practice handbook for all sites, which is already reaping results in a reduction in energy use. EMC now uses 10% less energy than before the introduction of the programme. This Working Group approach was so successful it is now being applied in other areas such as communication and customer experience.

Key to improving the quality of delivery of the strategic partners is getting them closer to the clients, so service partners now organise weekly meetings with local management (generally the HR Manager, the Business Opportunities Manager and the IT Manager), with the view to getting the client to understand that the service providers are not just contractors but are truly integrated into the business.

In addition, key service partner personnel working within the Operating Platform are treated the same way as EMC employees, with access to the IT network and the purchasing system. They can therefore initiate, subject to approval, the purchase of capital or non-fixed items, creating a truly transparent relationship. The results of this process means there has been a quantum shift in service provider thinking, from seeing themselves as working alongside competitors for one client, to being part of one business family across Europe. They are more engaged with the client as a result, and staff morale has improved.

Says Barclay:

"I've heard of instances of suppliers on private holidays touching base with the local EMC office. They attend that site to spend a day with a competitor company and walk through the building with a manager there who they met at a One Team conference and with whom they communicate regularly."

Achievements

In early 2014, EMC set itself the target of being placed in the Top 25 Great Places to Work globally.⁹ The results were announced in October 2014 and EMC was ranked 18th at a global level, and 7th for best multinational workplace in Europe, with high rankings across individual European countries, including coming in at number one in Spain.

The One Team approach has also been endorsed by Professor Dr Christian Coenen, a lecturer of Services Management at the ZHAW Institute of Facility Management, Zurich, Switzerland,¹⁰ who writes:

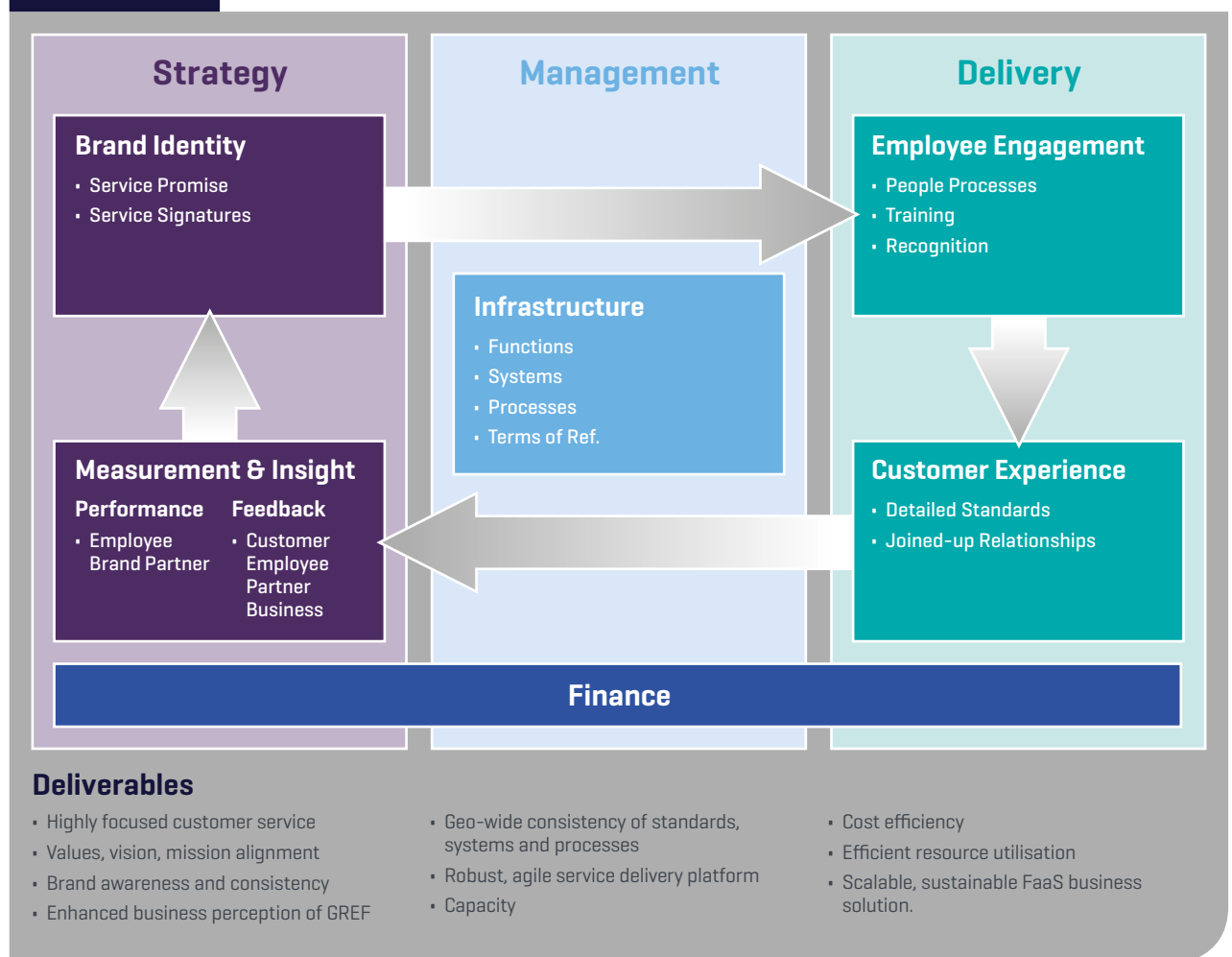
“Following one of EMC’s core values – Customer Experience First – the ‘One Team’ approach by EMC’s GREF team can be described as a striking example of customising FM service delivery for the customer.

This is achieved by engaging with regional suppliers who possess greater local buying power and a better understanding of local legislature and culture.

“At the same time, the ‘One Team’ approach demonstrates a centralised concept in that a common operating platform for finance and operational service delivery is established. Therefore, by uniquely combining customisation and centralisation within a group of 13 partners, this model comes close to the well-known squaring of the circle.”

The credibility of the RE&F function has also been raised substantially with senior management. The One Team approach has empowered local teams to introduce ideas to delight customers – for example, a bike rack was installed at a London office, and a ‘bike to work’ promotion was launched to tie in with local efforts.

Figure 3 EMC’s FaaS Operating Platform



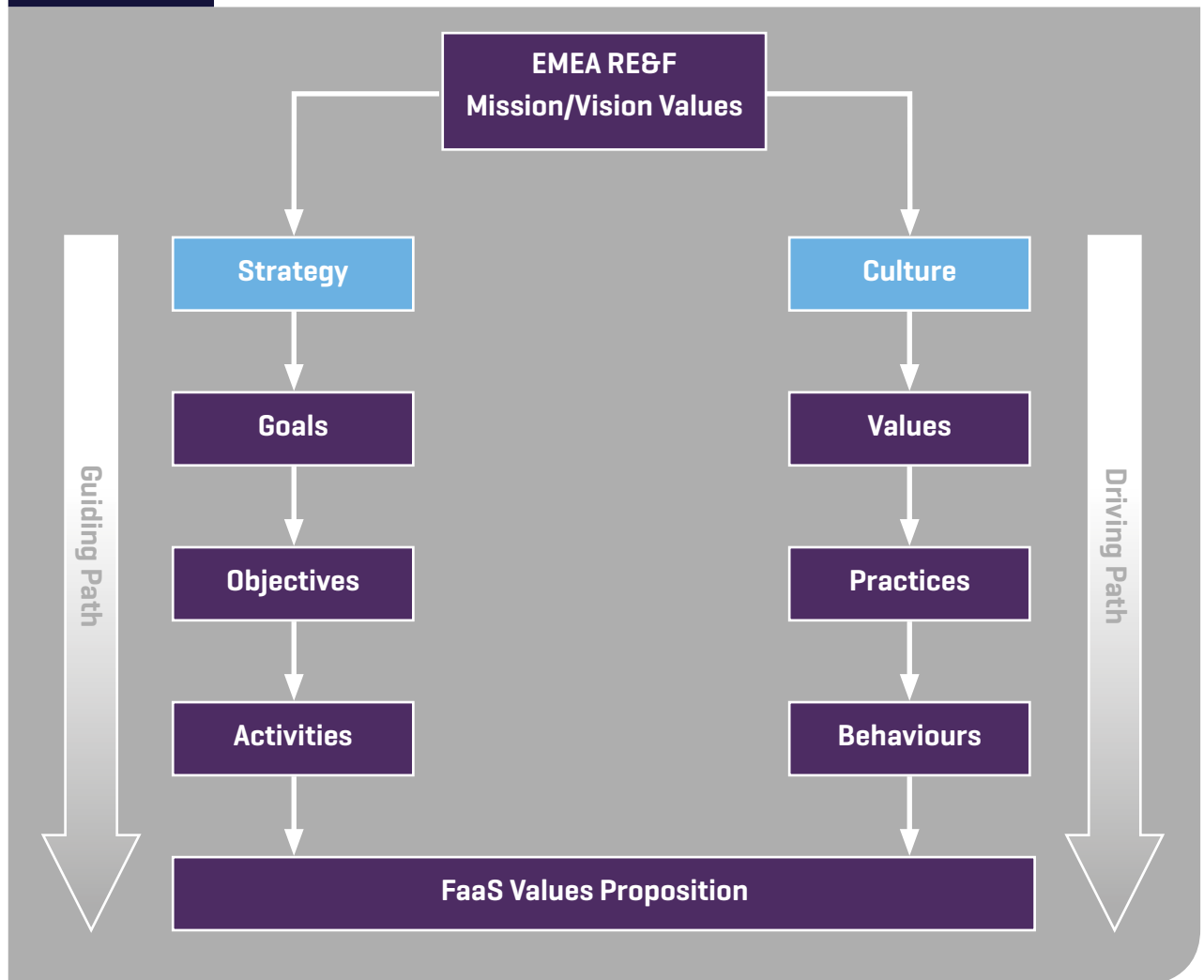
Source: EMC

⁹ www.greatplacetowork.co.uk

¹⁰ www.zhaw.ch/en/lisfm/institutes-centres/ifm-institute-of-facility-management/

Figure 4

EMC's Service Transformation Program (or journey to date)



Source: EMC

The initial conference in 2014 was followed up by another in 2015, with the intention of running these on an annual or bi-annual basis.

In the past 12 months, as the GREF partnership in EMEA has matured, new Working Groups that are managed by EMC leads have been developed that include a representative from each service partner. This allows EMC to identify best practice and innovation opportunities, utilising the expertise and experience of the entire division at no additional cost.

The current working groups focus on communication, energy management and total customer experience, each with its own terms of reference, focused on further developing service excellence and enabling the business.

The next part of the journey will be to continue to build on the One Team platform. There is now real scope to build on the strategic partner concept and take a helicopter view of the entire business. As EMC goes through a major period of change towards cloud-based services, the real estate and FM service is in a stronger position than ever to create ever more agile, scalable and responsive services that can respond to the business' changing needs and deliver demonstrable value. The 'FaaS' Operating Platform is also being improved to become deeper, more robust and with embedded measurement and insight processes.

Lessons learnt

According to O'Mahony, the creation of a successful team culture across all supplier lines has required excellent communication with the senior management throughout the entire organisation. This does have to be balanced with delivering something tangible rather than incomplete to the Board, but in hindsight, he believes communicating successes from as early a stage as possible would have helped illustrate the power of the process.

Says O'Mahony:

"We could have drip fed more of what we were achieving and what amazing results we were having. Every company goes through cost transformation projects or initiatives and if we had kept records of what we had and kept people informed on what we were achieving, I think it would have given us a little bit of leeway to gain more momentum around other initiatives."

On one contract, for example, the team went from a 2% reduction cost in year one to an additional 10% reduction in year two, and an additional 12% savings by year three.

He adds:

"This was very under-published, very under-accepted and you can never go back in year four and bring it to people's attention by saying, 'Four years ago we were 20+% above what our run rate is now' because it's already done, and has become your standard."

However, he concludes the main lesson learnt is in bringing local, regional and global management along on the journey by staying connected to every stakeholder and bridging the relationships between service partners, corporate headquarters and the customer lead.

Another important communications lesson is the continuing importance of the conference and forum programme. Delegates at 2015's event confirmed the value they got from face-to-face time with each other, understanding the importance of being able to pick up the phone to share best practice, no matter where they are based, with whichever supplier.

Barclay concludes:

"If you invest in developing an environment of trust and respect at a human level with your partners it is amazing what business ROI you get."

"For example, recently one of our partners managing a substantial portfolio in EMEA proposed a CRE consolidation solution that resulted in substantial cost savings to EMC. This was actually at the cost of lost FM service revenue to themselves, so they're going beyond what's commercially successful for their own individual businesses, achieving better value for all."



5.0 FM brand delivery: How a public–private partnership helped to deliver Olympic standard services to an international sporting event



Image source: Roxana Gonzalez / Shutterstock.com

The issues

For more than two decades, countries such as the United Kingdom and Australia have used Private Finance Initiatives (PFI) as a regular method of procurement for public infrastructure projects. The private finance initiative is a way of creating ‘public–private partnerships’ (PPPs) by funding public infrastructure projects with private capital.

In this way, private consortia design, finance and build new hospitals, schools, prisons, roads, bridges, railways, defence systems and Government offices. Most of these facilities are now being operated by private sector companies under service concessions that run for 30 years or more.¹

In the UK these projects often attract criticism, amidst accusations that PFI deals result in costly follow-on maintenance contracts awarded to affiliates of the construction partners.²

The UK’s Coalition Government responded to such criticisms in 2012 with the introduction of a new version, Private Finance 2,³ which excluded soft FM services, including cleaning and catering from PF2 contracts. Market response to these reforms has been positive,⁴ but given the United Kingdom’s apparently shrinking project pipeline, it is yet to be seen if this will be matched by sufficient new projects to support the new model.

Although certain mature PFI contracts continue to experience mixed reviews,⁵ P2 contracts are still being adopted in the UK to help finance procurement and hard FM services for schools and hospitals.⁶

The use of PFIs and Public Private Partnerships (PPPs) to deliver new public infrastructure and services is growing internationally, with the Canadian model of Public-Private Partnerships (P3s) considered to be one of the most successful in the world.⁷

1 www.swg.com/aus/white-paper/retrofitting-payment-mechanisms-delivering-ppp-contract-value

2 www.fm-world.co.uk/news/business-analysis/fm-faces-pfi-spring-of-discontent

3 www.fm-world.co.uk/news/fm-industry-news/pf2-contracts-in-fm-services-out

4 www.swg.com/can/canadas-next-top-model

5 www.i-fm.net/news/cumberland-infirmary-battles-major-flaws-in-pfi-deal

6 www.i-fm.net/news/financial-close-for-interserve-schools

7 www.constructcanada.com/wp-content/uploads/2014/08/canada_p3_white_paper_swg.pdf

There are major political commitments to P3s across Canada, by administrations at the federal, provincial and municipal level, with over 200 infrastructure projects delivered since 2009, representing over C\$70bn (for projects that have reached financial close) of capital investment.

The evidence shows that P3s have an impressive record internationally, and jurisdictions that have thus far made limited use of the model have much to learn from global exemplars of good practice.

Strategic approach

It has been estimated that US\$57 trillion in new investment in global infrastructure is required between 2013 and 2030 worldwide,⁸ with the investment requirement in the US alone being US\$3.6 trillion between 2013 and 2020.⁹ Despite being one of world's most affluent societies, the quality of its infrastructure is ranked 15th in the world.

P3s can provide an opportunity to invest over and above what formal government capital budgets will allow but, more importantly, also help improve the quality of investment decisions and the efficiency with which projects are delivered.

A key determinant of success is the strength of the relationship between the public and private sectors. This is clear in Canada, where the clarity of the pipeline, strong legal framework and the extent of trust between the public and private sector have helped to foster a stable, competitive and efficient market environment.

At the individual project level, trust and partnership working are fundamental to securing the risk-sharing and good, balanced, contractual relations that are at the heart of good project delivery.

However, to generate this, it is essential that the contracting parties have access to clear, transparent and objective information about the level of performance under the contract.

The following case study illustrates how the provision of a CAFM (Computer Aided Facilities Management) system for logging, monitoring, and reporting on the hard service provision in the Athletes' Village at the Pan Am Games in Ontario Canada in 2015, helped to provide seamless delivery of services, resulting in Olympic standard facilities management.

This was achieved with the use of FM software to manage maintenance requests, to enhance hard service delivery, to streamline reporting and increase transparency, all of which demonstrate value for the P3 project.



Image source: rmnoa357 / Shutterstock.com

⁸ http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_083856.pdf

⁹ www.infrastructurereportcard.org/



 **EllisDon**



Image source: 1 and 2: igor kisselev / Shutterstock.com

Case study

Pan/Parapan Am Games, Canada

The Pan American Games are the world's third largest international multi-sport Games, only surpassed in size and scope by the Olympic Summer Games and the Asian Games.

The Pan Am Games, which began in 1951, are held every four years for athletes from nations of the Americas and Caribbean. Since 2007, the host cities have also organised the Parapan Am Games for athletes with disabilities.

In 2015, Toronto became the Host City of the Pan Am and Parapan Am Games, which took place in Toronto in July 2015 and involved athletes from 41 countries across the Americas. The event was on a huge scale, catering for 10,000 athletes competing in 36 sports and 400 events across the Pan Am and Parapan Games.

Following the Games, the Toronto 2015 Pan Am/Parapan Am Games Organising Committee (TO2015)¹⁰ estimated that between ticketed events, municipal activities and free PANAMANIA festivities, close to a quarter of a million visits were made to Games venues from 7-15 August 2015.

The event cost more than 730 million Canadian Dollars in capital spend. As the host jurisdiction, Ontario invested an additional \$709m to build the village, which was broken down into:

- \$514m capital; and
- \$195m site preparation and transaction costs.

In 2012, Infrastructure Ontario (IO),¹¹ a Crown corporation owned by the Province of Ontario, which provides a wide range of services to support the Ontario Government's initiatives to modernise and maximise the value of public infrastructure, announced that the creation of the Pan/Parapan Am Games Athletes' Village for the Games would be funded under a P3 contract.¹² The long-term aims of the development were as follows:

1. To create the development of a new community in a long unused part of downtown Toronto, to create jobs and to stimulate economic growth in Ontario.
2. To offer Ontarians an environmentally-sustainable range of housing, retail and recreational opportunities.
3. To provide a temporary home-away-from-home for more than 10,000 athletes and officials participating in the 2015 Games.
4. To form a strong bond from the initial procurement phase to allow the development of the project from a solid foundation. The goal for the entire team – both public and private sector – was to help each other achieve excellence.

¹⁰ www.toronto2015.org/about-us/organizing-committee

¹¹ www.infrastructureontario.ca/home.aspx

¹² www.pppcouncil.ca/

The wider strategic objectives for the TO2015 Pan Am Games were:

- 1. Economic:** to ensure the economic benefits of the Games were shared among the broadest number of people possible. TO2015 achieved this by leveraging the investment in the Games as a platform to advance diversity and inclusion in recruitment and procurement practices.
- 2. Leadership:** to ensure leadership opportunities associated with the Games were shared among the broadest number of people possible. TO2015 achieved this by linking and partnering with community leaders to ensure TO2015 programmes were relevant, actionable and effective.
- 3. Awareness:** to build awareness about diversity, inclusion and accessibility issues. TO2015 achieved this by leveraging its public profile and presence to be a role model.

Because this was a P3 contract, the event required full accountability and transparency. Service Works Global (SWG – part of the Service Works Group of companies),¹³ an FM software company, provided its QFM software¹⁴ to the event, particularly to EllisDon,¹⁵ the construction and Facilities Service provider for the Athletes' Village.

EllisDon is an employee-owned company, delivering construction expertise and services to clients throughout the world. Completing in excess of \$3.5bn in new construction annually, EllisDon employs approximately 1,400 people and has a presence in North America, as well as offices in the United Arab Emirates. EllisDon Facilities Services Inc.¹⁶ is a specialist subset service within the EllisDon Corporation, which provides all-encompassing soft and hard facilities services, catered to each project's needs.

SWG is an international provider of comprehensive Facilities, Property and Workplace Management software. With a global network of offices, it delivers CAFM, CMMS (Computerised Maintenance Management Software) and MMS (Maintenance Management Software) solutions to over 1,000 customer sites across the globe to manage a broad spectrum of workplace and service environments.

As funding for the Pan Am Games came from the public purse, and in light of the huge capital outlay for the Athletes' Village, accounting for spending and proactively demonstrating value for money was essential. A robust system that could underpin quality assurance and monitoring was vital. Through quality, real-time data and comprehensive reporting, QFM software created a completely transparent system for EllisDon Facilities Services and the Toronto 2015 Games Organising Committee to monitor and manage service delivery, using an auditable system, demonstrating delivery of contractual compliance.

TO2015 and EllisDon Facilities Services chose the QFM system for the strong credentials it had in other P3 contracts in Canada – SWG is primarily involved in P3 infrastructure projects in Canada, with one of the first being the Alberta Schools Project Phase 1 (18 schools) in 2009. Other key projects SWG is involved with include the Humber Hospital in Toronto and OPPM (the Ontario Provincial Police Modernisation project).

Explains Eric Arsicot, General Manager at Service Works Global – Canada:

“SWG’s software is successful in the P3 market, because of its fully integrated Payment Mechanism module, which calculates complex deduction rules instantly. This real-time view of performance deductions and potential deductions accruing is a powerful tool in the management of SLAs, enabling proactive intervention and the identification of trends in problem areas. The on-demand nature of the reporting suite enables the service provider to concentrate on delivering the best service possible, instead of focusing on working out complex deductions manually, which can be extremely time-consuming and labour-intensive.

“All the calculations and results are stored within the QFM module, enabling a full audit trail and traceability of all actions. This transparency is a powerful feature which instils greater confidence to the end user clients regarding the integrity of the data used to compile the deduction summaries each month.”



Image source: 1: Yumna Nasir 2: rmnoa357 / Shutterstock.com



¹³ www.swg.com/

¹⁴ www.swg.com/products/qfm/

¹⁵ www.ellisdon.com/

¹⁶ www.ellisdon.com/facility-management

Challenges

EllisDon Facilities Services began working on the FM system a year in advance of the Games. They created high-level information for the system that was continually fine-tuned and perfected right up to and during the Games, thus avoiding wasted time through incorrect specifications.

Inputting the layout of the 1.5 million square feet Athletes' Village was the most time-consuming task, and began with building the information in the database, including the geography of the structures relating to the site, including their location, floors and individual rooms.

Another element was the type of services required. When a service was raised in QFM, it was termed an event, with each type of service shown in a series of dropdown menus within different service groups. For example, housekeeping, plumbing and electrical works would all be categorised into service group, service and type of work. All these categories had a priority with a deadline set for each type of work.

The other types of information required were the planned maintenance schedules, which had to be inputted closer to the event.

Says Arsicot:

"The system had to be operational by February 2015, giving enough time for EllisDon to familiarise themselves with the system and understand how to get the data in

and out and run reports, before the Games began in July. For this particular project it was quite interesting because the implementation was not just between us and EllisDon, but also Toronto 2015, so it was a three-party project."

The size of the Athletes' Village is about 35 acres in total, with around 1.5 million square feet of built space. Five new mid-rise residential towers were constructed for the Games, which were also designed to provide a legacy that would aid the development of downtown Toronto.

The site also featured a modular 'polyclinic' structure, which essentially acted as a hospital for the athletes while they were there. Three heritage buildings were also created; one used as an internet café, another for storage, and the last, known as the Foundry, was incorporated into the plan to contain all the operational services for the site, including police, security, food services, the EllisDon Facilities Services and Toronto 2015 teams.

Other components included the main restaurant for athletes and coaches, which was a temporary facility with a kitchen capable of serving 2,500 people. A welcome centre and small shopping plaza was also constructed entirely through overlay methods, including tents and hard-walled temporary structures.

The Village was to be inhabited for almost two months by over 10,000 people, comprising athletes, officials, staff members and volunteers.



Image source: 1: MikeC / Shutterstock.com 2: rmnoa357 / Shutterstock.com 3: Yumna Nasir



Explains Katherine Paez, Manager for Support and Services Operations on the Toronto 2015 Pan/Parapan American Games Organising Committee:

“It’s interesting to see the pressure that exists when you have athletes coming to a place like the Village, and one of the major concerns was that we were occupying a brand new development, so how were the buildings going to react to that capacity?”

“It had never been tested to that extent, for example with plumbing. How would it work if everyone started flushing the toilets? Or if everyone decided that they wanted their air conditioner at a high heat?”

The challenge for EllisDon Facilities Services was to efficiently and effectively deliver hard services for a high profile project, and the scale of the task – delivering 24/7 maintenance to what was in effect a small village, with its own florist, bank and medical centre – was immense.

During the Games, EllisDon Facilities Services would receive a work order around every 30 minutes, and would carry out around 5,000 jobs over the course of the Games period. These varied from essential plumbing maintenance to ensuring that the automated door system was in full working order.

The QFM system enabled EllisDon Facilities Services to effectively schedule work and streamline work processes, with the adoption of a planned preventative maintenance (PPM) approach.

According to Yumna Nasir, Facilities Manager and Operations Lead at EllisDon Facilities Services, a major challenge for the software was to ensure seamless communication between all the third party sub-contractors and facilities teams.

She explains that, due to the size and scale of the site, not every building was designed by the same architect or by the same contractor.

“This meant there were so many third party contractors on the job that communication had to be on point. You had to know everything and everybody in order to get the site service that you wanted and all the services needed to be completely transparent, so if there were any queries regarding progress on an event, the answers would be readily available.”

For instance, if athletes had requested a work order, the QFM system would chart its current status, allowing the Toronto 2015 clerks to dispatch work orders and continually update the system.

Says Nasir:

“The QFM system was not only designed to produce work orders, but provided a range of monitoring reports, in which it showed every single work order that had been produced, the status of that work order, when it was responded to, how it was rectified, and when it was closed, so there was absolutely no confusion.”



Image source: 1, 2, 3 and 4: rmnoa357 / Shutterstock.com

“The result of this was that, during the Games, TO2015 created such confidence within the governing bodies that they were able to move from the usual daily reporting schedule to only being required to meet with the officials every three days.”

Another major challenge was managing the security of the accommodation blocks, because each athlete was issued one key that opened the main door plus a specific room key to their apartment.

Several approval processes were put in place to indicate which key belonged to which block building, all of which needed to be colour coordinated. However, as the architectural numbers often conflicted with the wayfinding numbers, to ensure ease of identification for the maintenance team, the system cross-referenced each key with the FM team’s designations for rooms.

In practice this meant that, if an athlete had their suite key but no idea where they were, and needed assistance in their room, the facilities team could identify from the code that they were, for instance, in the north tower, block 11 on the fifth floor, and despatch a repair person straight there.

Says Paez:

“With this system it meant that even if we were told: ‘I don’t know where I am. I have to go look outside my suite,’ you could just ask ‘Where’s your key? Can you read your key? Okay, and then we know exactly where you are and we can go from there.’

“It sounds like such a small thing, but at the end of the day it’s those small items that can inundate you when it comes to the hands-on operation of the facility, so we worked in tandem to solve them.”

Paez’s role within the Village was to help facilitate the services between many of the departments, so she was very close in terms of communication with the delegates and the athletes, and is pleased to report she received plenty of positive feedback.

“In fact, I think we’ve set the bar,” says Paez, *“and a true testament to that is we had daily meetings with the representatives for each country, and during those meetings in previous Games, you would always have somebody complain, often rightfully so, as these Villages were new and untried.”*

“But what set us apart was that there came a point where they said, ‘Well, there aren’t that many issues, so let’s postpone the daily meeting to maybe every other day’. Towards the end we had meetings that were postponed to the third or the fourth day, just because we were getting praise, rather than complaints.”

“This gave athletes and officials the reassurance that we were on top of our game, that the communication here was a priority and that we were getting things done and once again that helped us reduce the amount of meetings that we would have with these delegations.”

Reports from QFM were also used as evidence to refute media allegations that there were problems with the project’s quality and standards. Eager for a story, the press escalated a rumour about a blocked toilet, and the whole Village suffering from sewage problems. Using data from the system, TO2015’s Director of Operations was able to issue a statement that proved this was untrue.

Other services managed by the QFM system were logistics, housekeeping, and some site management. Using the software, the TO2015 team was able to issue requests for housekeeping services and logistics, which for example might include luggage assistance within the Village for the athletes.

Meanwhile, as a P3 project that attracted interest from around the world, the Toronto 2015 Pan Am and Parapan Am Games strategy was guided by a detailed service framework. This referred to Toronto 2015’s (TO2015) high-level values and aspirations and the collections of standard procedures, guidelines, training materials, documented ways of working and key performance indicators (KPIs).

QFM enabled EllisDon and TO2015 to demonstrate that 95-99% of jobs were closed down within the allocated timeframe during the Games. The technology enabled them to exceed expectations, and the International Olympic Committee (IOC) stated that they had gone way above and beyond the standards expected, going so far as achieving Olympic standard.¹⁷

Legacy

The Athletes’ Village was created with a view to support the wider Ontario community by providing a beautifully designed, sustainable, mixed-use riverside community.

The attention to detail for the Parapan athletes has made the Village a very user-friendly space for all. Increased visibility and sightlines, in addition to variations in contrast to assist with identifying changes in grade, and areas that are spacious enough to properly and smoothly accommodate wheelchair turns, make the accommodation inclusive and sustainable.

Maintaining these facilities is not hard as some of the best architects and designers in Toronto were used to come up with effective and efficient designs to complement people’s needs.

Says Nasir:

“PFI was used because, without the input of the public sector, and without the ingenuity and creativity of the private sector, the Pan/Parapan Am Village would be nowhere near as effective as it was. The Government had a stake in these buildings more so than private condos, especially as they were going to be represented internationally to present Toronto and Canada to the world. Therefore, everything was monitored, reviewed, questioned, and transparent.”

¹⁷ www.olympic.org/news/ioc-president-meets-the-athletes-on-the-first-day-of-competition-at-pan-am-games-attends-opening-ceremony/246540

Before the QFM software was decommissioned after the Games, the reporting information was used to contribute to the Games' legacy report with a plethora of data, including equipment PPM history and effective and efficient working processes and materials.

For the EllisDon team, this means that managing the legacy process beyond the Games has been much simplified because, using the information presented by the software, the construction team was already apprised of the key areas that they needed to focus on to ready the new buildings, and which temporary changes made for the Games now needed to be made permanent.

As they already had that information they could prepare well in advance to bring the correct materials on site to meet their deadlines, which were essentially very tight because they had to turn the site around by March 2016 when it was due to be handed over to the developers.

Lessons learnt

Arsicot believes that one of the best aspects of the project was the level of communication and transparency between EllisDon and Toronto 2015, which, with regards to the QFM system configuration, meant that it had to open up more than usual. He explains:

"A self-service portal usually provides access to all the calls raised within a building for a particular concierge, enabling that person to see all the jobs.

"However, typically a self-service user will only have access to their own jobs, but in this case we had to open QFM up so that the clients could see all of the jobs on a particular building.

"You will often have clients saying, 'We want to shut the system down as much as we can and just provide the bare information', whereas with the Pan/Parapan Am Games QFM was designed to be more open as to what the user could see, and I think that's reflected in how transparent and how clear the communication was for this project."

Nasir agrees:

"As stated by the International Olympic Committee, we didn't just achieve acceptable levels of service for the Pan Am and Parapan Am Games; we achieved what would be expected at an Olympic standard event, and in fact excelled at it. So Rio Olympics 2016 needs to watch out because people are going to be expecting a lot!"



Image source: rmnoa357 / Shutterstock.com

6.0 FM brand delivery: Delivering integrated preventive guest room maintenance for thousands of hotel rooms in Singapore



The issues

Singapore is a wealthy city state and global financial hub in south-east Asia, often described as one of Asia's economic 'tigers'.¹ As well as being a renowned business destination, Singapore attracts over 15 million tourists each year, and has won a range of accolades, from *Lonely Planet* (World's Top Country to Visit in 2015), *CNN* (Top 10 Destinations to visit in 2015) and *the New York Times* (Top 6 out of 52 places to go in 2015).²

As befits the 'world's most expensive city',³ visitors to Singapore can choose from a range of top class hotels, and gazetted hotel room revenue was estimated at \$0.7bn for the second quarter of 2015.⁴

Singapore's tourism sector has experienced huge growth over the past ten years, with tourism receipts and visitor arrivals registering a compound annual growth rate of 9.2%

and 6.1% respectively from 2004 to 2014.⁵ From 2004 to 2014, Revenue per Available Room (RevPar) has more than doubled from S\$98.20 to S\$220.50 and total room revenue has tripled from S\$1.02bn to S\$3.15bn.

However, Singapore is facing a major labour crunch.⁶ Miranda Lee, Director of People and Change Management at KPMG Singapore, warned in *Human Capital Magazine*⁷ that a falling fertility rate, coupled with an increase in life expectancy from 66 years in 1970 to 82 years in 2010, has resulted in a shrinking and ageing workforce.

This is compounded by the fact that the younger generation of Singapore workers are much more likely to have obtained higher academic qualifications – encouraged by their parents and by universities, which have reduced costs to make it easier for students to attend higher education. These highly educated, ambitious graduates are simply not interested in taking hands-on jobs in the leisure industry. Figures show that as a result of this growth, by 2030, two-thirds of Singapore's workforce will be expected to hold Professional, Managerial, Executive and Technician (PMET) jobs.⁸

This has led to an over-reliance on foreign labour from India, the Philippines, Malaysia and China, which in 2010 led the Singapore Government to begin tightening rules for hiring foreign workers, to create incentives for home-grown innovation and productivity.

1 www.bbc.co.uk/news/world-asia-15961759

2 www.stb.gov.sg/lists/highlights/dispform.aspx?ID=19

3 www.theguardian.com/cities/2014/mar/05/singapore-most-expensive-cities-2014-list-paris

4 www.stb.gov.sg/statistics-and-market-insights/Pages/statistics-Hotel-Statistics.aspx

5 www.stb.gov.sg/industries/hotels/Documents/Hotel%20Industry%20Expert%20Panel%20Report.pdf

6 www.hrinasia.com/hr-news/productivity-stuck-in-reverse-amid-labour-crunch/

7 www.kpmg.com/sg/en/pressroom/pages/mc20150514.aspx

8 <http://population.sg/whitepaper/resource-files/population-white-paper.pdf>

In an interview in 2015,⁹ Prime Minister Lee Hsien Loong explained that the Government's reasons for imposing restrictions on immigration and the size of the foreign worker population were in recognition of real problems that can affect Singapore society and the need to address them.

Aside from how foreign workers and immigrants are fitting in and affecting "the tone of our society", he said that the space, infrastructure and "carrying capacity" of the country were also important factors.

"Last year, the inflow was the slowest it has been in a very long time and I think that is necessary," he said, referring to the increase of 26,000 in foreign employment, down from a growth pace of 80,000 in 2011.

However, the impact on the leisure and services sector in particular has resulted in a widespread shortage of services staff, forcing some leading restaurants for example, to have to close or restrict opening hours, while within the hotel and leisure sector, employers have struggled to fill jobs.

Manpower Minister, Lim Swee Say, has announced however, that despite the fact these tighter restrictions are causing businesses – particularly those within the services sector – great difficulties,¹⁰ there would be no let up on the administration's tight lid on foreign worker numbers in Singapore.¹¹ In fact, Singapore is likely to face an increased labour shortage as a result of dwindling manpower supply from major suppliers such as China, according to a recent warning by labour leader, Ong Ye Kung.¹²

Strategic approach

Aside from retail and residential space, Singapore's real estate includes seven million square metres of office space, and 37,000 hotel rooms. To ensure Singapore's competitiveness as a global city, real estate management and maintenance plays a strategic role.¹³

Demand for maintenance staff is very strong, and as new buildings are constantly being constructed in the city there is a continuous requirement for experienced and trained staff. Given the labour-intensive nature of the work, workforce quality is a crucial lever to help maintain a competitive edge and high levels of service.

The Singapore Workforce Development Agency (WDA)¹⁴ is working in tandem with the Real Estate and Construction Centre (RECC)¹⁵ to develop the workforce in and for this industry. The RECC was established in 1993 to provide an alternative avenue for quality education, research and advice for the real estate and construction industry, and

has its headquarters in Singapore and a regional centre in Malaysia. There are plans underway to establish other centres in Brunei, Indonesia, Hong Kong and China.

RECC is also linked to major international real estate and construction R&D Centres, and works with experts from academia and the industry to provide state-of-the-art technology transfer, research and advice.

Both the RECC and WDA are actively promoting Facilities Management as a rapidly growing profession, which means it is increasingly recognised as a strategic discipline within organisations.

According to the WDA, with the growing number of sustainable developments in Singapore, more capabilities in FM will be needed to manage the integration, planning and management of a wide range of services to achieve better quality and economies of scale.

However, despite the growth and interest in what could become a highly skilled facilities management sector in Singapore,¹⁶ there is a vast difference between how facilities are managed within the hotel and leisure industry, compared to the commercial property sector.

The hotel industry in Singapore tends to self-perform, i.e. instead of engaging external services providers, it relies mainly on in-house teams that are not usually termed 'Facilities Management' but, rather, 'Engineering'. This in-house team will typically comprise carpenters, plumbers and electricians.

This can create a very close circle and a small domain, presenting problems when it comes to training, recruitment and retention; stifling and inhibiting innovation.

The Singapore Tourism Board has been working closely with the hotel industry to develop and implement initiatives to help tackle these issues and promote productivity. While there has been positive response from "progressive hotel owners and operators in managing manpower-lean operations,"¹⁷ there remains room for further adoption of these initiatives from others. The industry will also benefit from innovative and new ideas, which will inspire the industry to level up its game in this journey towards productivity-driven growth.

It is with this in mind that the Singapore Tourism Board formed the Hotel Industry Expert Panel in February 2014. This panel, which comprises a mix of overseas experts and experienced local practitioners, has provided fresh perspectives in looking at issues, offered new insights to overcome challenges, and made recommendations to support the industry for sustainable growth.

9 www.straitstimes.com/singapore/no-easy-choices-on-foreign-worker-immigrant-policies-pm-lee

10 www.straitstimes.com/singapore/eateries-turning-away-diners-due-to-growing-labour-crunch

11 www.straitstimes.com/singapore/no-u-turn-on-tight-foreign-worker-policy-manpower-minister-lim-swee-say

12 <http://sgforums.com/forums/3317/topics/433965>

13 <http://wgs1.net/lfma-sg/?p=629>

14 www.wda.gov.sg

15 www.recc.com.sg

16 www.wda.gov.sg/content/wdaweb/L202-SingaporeJOBSpedia/L302-010B-Facilities_Management_industry.html

17 www.stb.gov.sg/industries/hotels/Documents/Hotel



The panel acknowledges that one of the greatest challenges for the hotel and leisure sector is manpower, for while room stock continues to increase, Singapore's slowing workforce growth and the changing career aspirations of the millennials are making it harder to attract and retain local talent.

This, it says, *“creates a critical need for the hotel industry to shift from manpower-driven growth towards productivity-driven growth, which is underpinned by innovation”*.

Some hotels have embarked on productivity initiatives and achieved success towards lean manpower. However, going forward, the panel says that the industry must build on these successes in order to successfully navigate the ensuing challenges. It states:

“To achieve this, the industry has to innovate in three key areas – Process, Service and Manpower. Innovations in these areas have been validated by the panel to have maximum impact on raising productivity through enhancing business efficiencies.”

The following case study describes how the hard services team at a major hotel group devised a strategy to improve the quality and reliability of planned maintenance for over 2,000 valuable hotel rooms – firstly, by getting to understand what its customers really wanted, and secondly, applying a focused FM approach.

Case study

Fairmont Singapore and Swissôtel The Stamford

Fairmont Singapore¹⁸ and Swissôtel The Stamford¹⁹ are located within the Raffles City complex – integrating retail, commerce, hotels and convention centre space in Singapore's central business district.²⁰

Designed by world-renowned architect, I M Pei, to be ‘the city within a city’, Raffles City opened in 1986 and links the tourist and shopping areas with the commercial and financial area in and around Raffles Place. The complex consists of Raffles City Shopping Centre, Raffles City Tower, Raffles City Convention Centre, Fairmont Singapore and Swissôtel The Stamford.

The two five-star hotels comprise a total inventory of 2,030 rooms and suites housed within two 26-storey towers and a 70-storey tower. Both hotels were built in 1985 and are now managed by Fairmont Raffles Hotel International Inc. Guest rooms form the main part of both hotels' business, so the importance of maintaining the conditions and standards of each room is pertinent. The hotels observe a corporate standard to carry out planned preventive maintenance (PPM) for all guest rooms and suites at least once a year.

¹⁸ www.fairmont.com/singapore

¹⁹ www.swissotel.com/hotels/singapore-stamford

²⁰ www.rafflescity.com

Challenges

According to Assistant Director of Engineering, Johnny Goh, the high level occupancy throughout the year – typically at 95% and above – would mean more careful consideration of the duration of downtime when planning the PPM works.

Because the rooms within inventory are always ‘sold’ – and thus occupied – it makes maintenance works difficult to be carried out without potentially losing revenue; especially given that the previous in-house PPM maintenance regime would typically require three days to complete.

The scope of planned preventative maintenance includes works such as painting, grouting, silicone sealing work, balcony door servicing for air tightness to prevent external air infiltration, and furniture varnishing.

Mechanical maintenance work includes chemical cleaning of HVAC fan coil units (an annual exercise), and servicing for plumbing work, which comprises clearing and unclogging pipes. The previous downtime for a typical full preventative maintenance was three full days, performed by both in-house engineering technicians and term contractors.

This lengthy downtime was assessed to be mainly due to unconsolidated required maintenance work, which was carried out in silos. For example, the maintenance regime begins with the servicing of air conditioning units, followed by a chemical cleaning process, building works, and lastly, plumbing works.

Goh says:

“It was observed that the different tradesmen took turns to carry out their respective maintenance. This was inefficient, unproductive and time consuming.

“When you take into consideration the potential revenue based on 2,030 rooms, those undergoing PPM that would have to be taken out of inventory for three days has a significant impact. However, for so many years, the team’s mindset of PPM to take three days was cast in stone.

“Because many of the team colleagues had been with the hotel for almost 30 years, there was a habitual mindset of doing things a certain way, with high resistance to change. Although we wanted to introduce some big changes and put in place some KPIs, change inertia was high as they had been very accustomed to completing required maintenance within a three-day time frame.”

Aside from these factors, the hotel was also affected by macro-environment challenges, such as the previously mentioned restrictions surrounding foreign labour, and an ageing workforce within the in-house engineering team. One of Goh’s colleagues was already in his mid-70s, but yet limited younger people were available to take on these jobs.

The unavailability of younger and competent staff also adversely affected the way the allocation of rooms due for maintenance was managed. Despite external contractors recommending covering the rooms based by floor, the works had to be staggered and spread throughout the complex.

This had a considerable impact on the quantity of PPM delivered each year, which meant the rooms were not being maintained consistently. Faced with these challenges, Goh carried out a full review of the historical data on the quality, quantity and cost of the preventative maintenance carried out over the previous years. His overriding goal was and is to ensure that the delivery of one cycle of planned preventative maintenance for 2,030 rooms per year is achieved.

Furthermore, Goh has also faced another considerable challenge, which is to change the mindset of the stakeholders, end-users and in-house engineering staff on the purpose and intent of outsourcing, and persuading them to shift from a traditional preventative maintenance model to an Integrated Facilities Management model approach.

This required Goh to ensure that the stakeholders and in-house team were convinced of the advantages of the proposed change, which was essential to achieve, by analysing the stakeholders’ needs, concerns and expectations.

For Goh, this meant developing a better understanding of the needs of the rooms division within the different hotels as rooms are ‘sold’ primarily as a key product or brand. Most hotels, he explains, use a score card to gain feedback from customers on the condition of the room, and when the maintenance team were given access to this information, they gained a better understanding of the level of requirements expected from their services.

“As a FM professional, regardless of whether one is managing an office building or leisure complex, it is vitally important to understand the business orientation of the client and the user,” he says.

“In this case, if we only have little understanding of how the standard of the room maintenance would affect the score, we could never hit that target. So this requires a great deal of communication, and ultimately connecting the services provided by FM with a deeper understanding of the business that it served.”

With all these factors combined, it was imperative to look for an integrated delivery approach, to meet corporate requirements and stakeholders’ expectations.

Says Goh:

“When we presented this concept, the stakeholders’ initial concern was the potential loss of control; control over deliverables, quality, time taken and resources.

“There was a lot of anxiety experienced and uncertainty expressed, which took us much effort to explain to the Board on the model of outsourcing and its benefits. It took a few months to sell this idea to the higher management of the hotel.

“In addition to this, the in-house engineering team was worried about their job security with the consideration of us outsourcing their jobs.”

In reality, the in-house team was not replaced, and in many cases, the team took on more senior and supervisory roles over the contractors. It was decided to divide job roles into technical and strategic portions, and have the more experienced colleagues taking on greater responsibilities. For example, a senior engineer in the laundry department would be appointed ‘knowledge master’, which not only assisted in ensuring they do a better and more efficient job, but also improved morale and work ethics.

Integrated solution

The decision to connect all of the key maintenance services, including building, mechanical, electrical and plumbing into an integrated package, removed the need to enter rooms repetitively and separately, resulting in the reduction of time required for PPM from three days to just eight hours.

The scope of changes required involved:

1. Detailing the challenges and concerns faced by each department / division.
2. Communicating and understanding the needs of stakeholders.
3. Detailing the scope, method statement and key performance indicator in one contractual document. The contract would be the documented expectation of the stakeholders and hotels to the outsourced FM company.
4. Communication and training to the engineering department and FM company on the delivery methodology for the PPM for the guest rooms.
5. Agreement on the timeline and deployment methodology between the hotel and FM company.

Following months of reviews and consultation with industry players and experts, the Engineering department consolidated all its services. With the appointment of an outsourced contractor, a detailed Planned Preventative Maintenance contract was developed. The Request for Proposal (RFP) for the guest room preventative maintenance was rolled out in early January 2015, and the implementation of the guest room PPM commenced in July 2015.

The capability of the Engineering department to deliver PPM in large quantities to a higher quality has been enhanced through the strategic alliance with the global FM firm. Through this partnership, the hotels are now able to deliver the completion of PPM in eight hours through one Facilities Management partner, using an integrated approach. This has resulted in a better coordinated programme, and better quality control, which is KPI-driven with a warranty period included.

The overall cost of the PPM was reduced by 30% through consolidation of the works. The quantity of PPM carried out has increased from ten rooms to at least 30 rooms per day.

The outcome is improved guest room condition, reduced downtime from three days per room to less than one day, a subsequent increase in revenue, improved stakeholder and guest satisfaction rates, and reduced costs.

According to Goh, the less tangible (but arguably more important) improvements are the increased levels of communication between the Facilities and Engineering teams.

“I think one of the most positive aspects of Facilities Management is engagement and communication; creating understanding,” he says. “Engineering as a discipline is rather different; they do things really independently and do not communicate on the work at hand, which can lead to a tendency to do things individually with a lack of coordination.”



Lessons learnt

The objective of the strategy was to enhance the way the engineering team at the hotels managed its operations, by applying FM strategically to the way the works were carried out.

However, with reference to the advice by the Singapore Hotel Industry Expert Panel, managing this shift towards productivity-driven growth through innovation requires a *“fundamental mindset shift which all stakeholders must buy into”*.

Goh admits that persuading and convincing the hotel management on the merit of the changes took time, although was to be expected with the prevailing mindset and high inertia in change within the Singapore hotel industry, an inertia he describes as *“cast in stone, as many people are pretty conservative and resistant because this is how the model has worked, up to now”*.

He says:

“The lesson learnt was really about bringing in alternating perspective on the way that we manage our operations, and to persevere even when we met with initial resistance.”

He also advises it is vitally important to always engage stakeholders because, at the end of the day, FM does not own the hotel, and it is important to enhance communication to help meet senior management’s expectations.

This concept is in line with the Singapore Hotel Industry Expert Panel, which states:

“For effective change management to be achieved, it is required that all stakeholders – owners, operators, hotel staff, associations, unions, educational institutions and government agencies – be involved, engaged, aligned and working together towards a common set of goals and initiatives that will lead to productivity-driven growth.”

Concludes Goh:

“From my experiences in the FM industry, and dealings with many of my previous clients and partners, I believe it is possible for hotels to deliver their existing hard services in a new practice. As a Facilities Manager, one has got to stay on top of the many persisting problems the industry is facing and continue to reinvent and enhance the way of our operations to increase efficiency and maximise utility.”





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