



# EFFECTIVENESS OF PORTERING AND CLEANING IN HIGHER EDUCATION

# INTRODUCTION



The role of portering and cleaning (PAC) in the higher education (HE) sector has become a focus of review as universities seek to contain costs. Regardless of the pressures on cost, customers expectations on quality remain high or are rising. Trends like the increasing needs for extended opening lead to more pressures.

As the quest for competitiveness and efficiency has intensified so too has the desire to assess and benchmark services. While comparison can yield valuable information, it has become clear that finding appropriate comparators is critical to success - inappropriate comparison can actually do more harm than good.

Throughout this paper we discuss the factors that influence PAC comparisons. Some quantitative data is available from the Estates Management Statistics (EMS), but this is very limited and valid comparisons are difficult to make. However, in the course of many reviews we have found qualitative models that suit institutional infrastructure and objectives.

This paper aims to share the experience of SUMS Consulting with those who wish to assess their current operation or be considering change.

Many thanks to the University of Leicester for their assistance in the preparation of this paper.

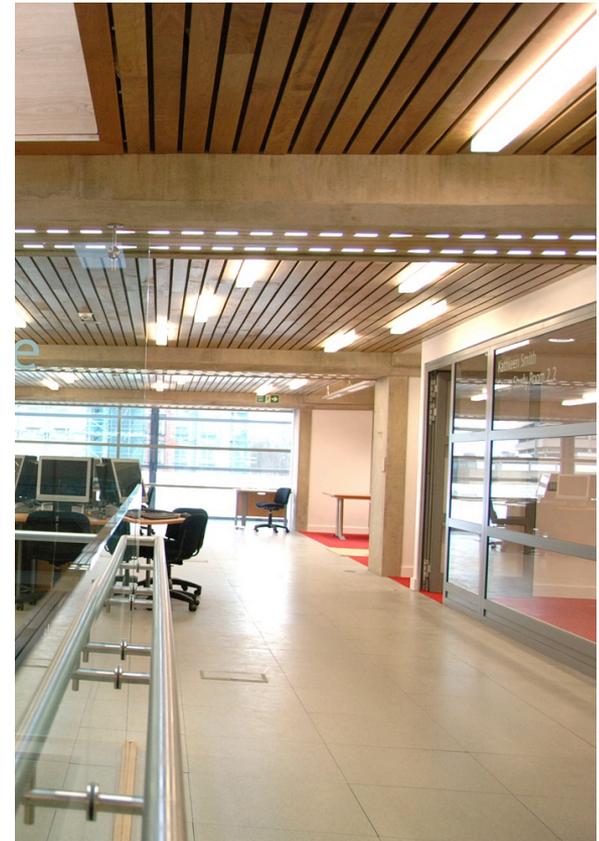
# Assessment methods

Sector  
benchmarks  
where possible

The main source of data is the Estates Management Statistics (EMS). There are only two relevant statistics for cleaning in EMS, 'area cleaned' and 'cleaning costs'. For portering there are 'portering costs' and 'gross internal area'. However these are broad ratios which are of very limited use because of the range of factors that influence them at a detailed level. This makes valid comparisons almost impossible. These factors are summarised later.

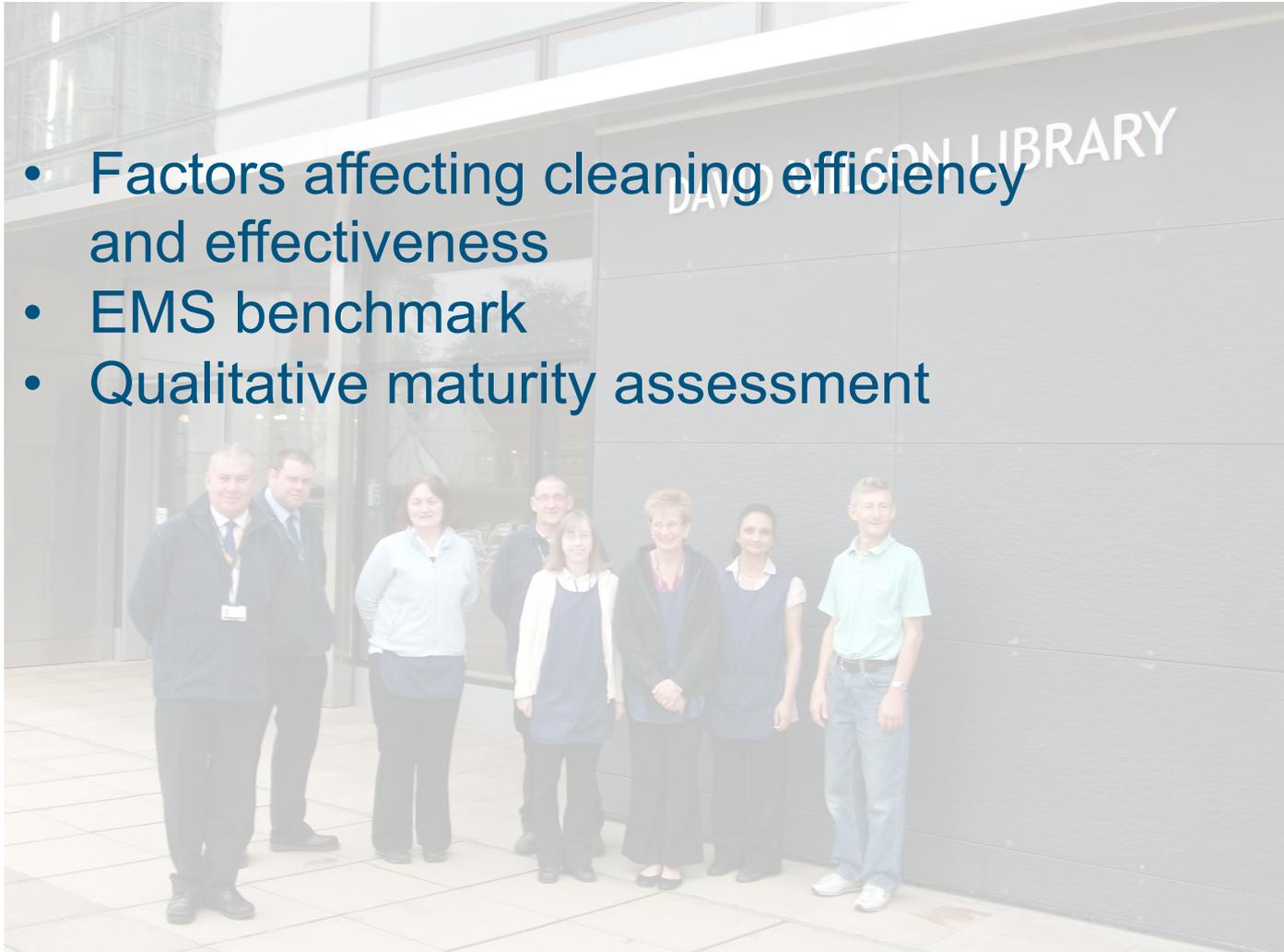
SUMS  
qualitative  
assessment

SUMS has carried out many reviews in this area and collected a range of benchmark. The quantitative data confirms the concerns outlined above. Qualitatively examples of good practice have emerged, but there is no single best model. Certain models will fulfill differing institutional infrastructure and objectives more effectively than others.



# CLEANING

- Factors affecting cleaning efficiency and effectiveness
- EMS benchmark
- Qualitative maturity assessment



# Factors affecting cleaning efficiency and effectiveness

## Nature of use

Offices - Open plan / small office / individual  
Teaching - Small group room / theatre style lecture hall  
Specialist - Sports hall / Lab / performance space  
Common - corridor / reception / stairs  
Retail, leisure and food – style, footfall, hours of opening, indoor v outdoor



## Nature of building

Old – often have many small rooms and surfaces that require regular polishing  
New – may have surfaces that need specialist cleaning and areas that are difficult to access (e.g. atriums)  
Large – Easy to use large commercial equipment, economies of scale, fewer surfaces  
Small – slow to clean, gaining access delays cleans,

## Nature of campus

Centralized – Buildings co-located, easy to supervise, economies of scale  
Dispersed – Time to travel, size of building, unable to use large equipment

# FACTORS AFFECTING CLEANING EFFICIENCY AND EFFECTIVENESS

## Level of use

The footfall through a building will be a major factor on its cleaning requirements. Some specialist space may be used infrequently. A library can have 1,000 visitors per hour at peak times.

## Service levels

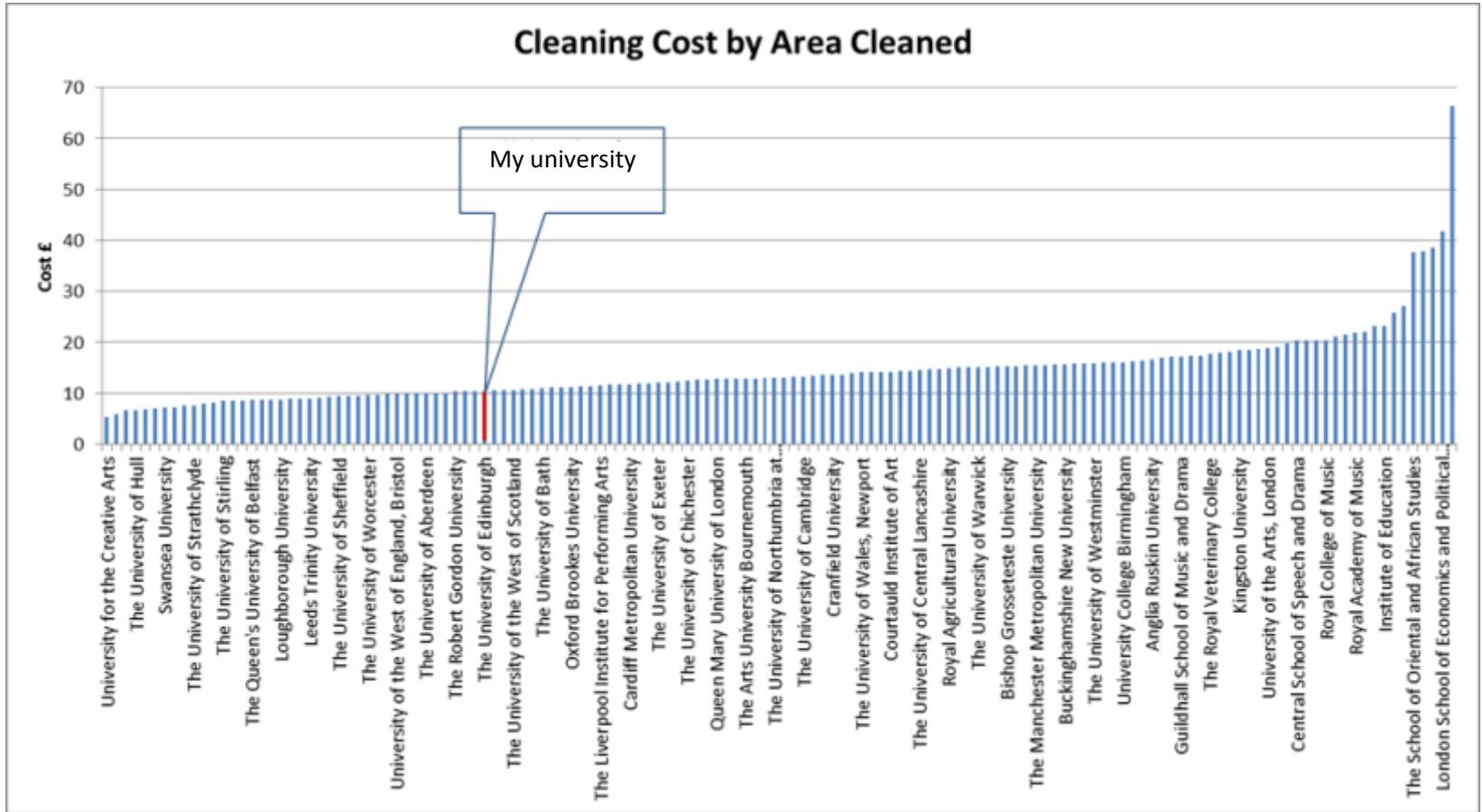
Agreed service levels are the most basic and direct driver. Cleaning something twice a week takes approximately twice the resources that cleaning once a week would. VIP buildings require a higher standard. Levels of self help expected, emptying own bins, cleaning kitchens and cups, self clear food and drink waste etc.

## Equipment

Investment in the purchase and maintenance of appropriate equipment for tasks like large scale cleaning or specialist tasks like removing chewing gum can have a significant impact on efficiency.



# EMS benchmark (2013)



# Qualitative maturity assessment

As discussed briefly above the EMS benchmarks have limited value. The range of factors that affect performance tend to make it difficult both to interpret the figures and to decide on appropriate actions.

Having observed many operations it has been possible discern trends in effectiveness that are related to organisation, processes and systems. These have been integrated into the following maturity model. This enables institutions to judge their effectiveness in a qualitative way and also give an indication of the changes that would be needed to improve.

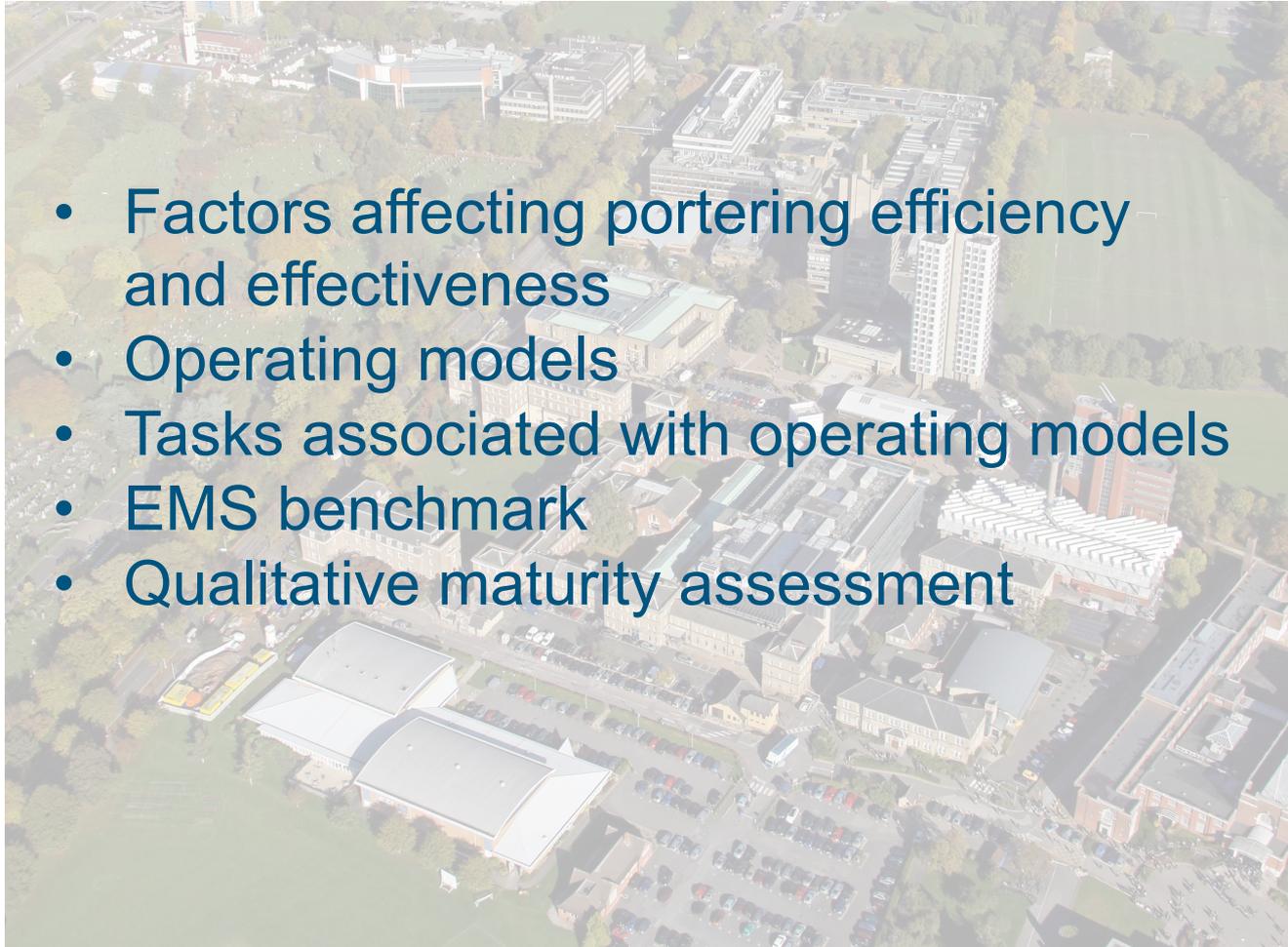
Factor / maturity	Low	Medium	High
People	No clear structure and no path for career development	Structure exists, but no path for career development	Clear structure with career opportunities such as team leader / manager.
	Little or no training in specialist aspects of work	Basic training in the “must have” aspects of the job.	Training conforming to British Institute of Cleaning Science (BICSc)
	Low morale, high turnover / absence, inflexible, cover difficult	Manageable turnover / absence. Cover is provided but not seen to be fair.	High morale. Low turnover / absence. Flexible staff work in transparent system to provide cover

# Qualitative maturity assessment

Factor / maturity	Low	Medium	High
Process	No standard procedures or work specifications	General procedures, but not specific to individual tasks	Specific procedures and specifications that are regularly reviewed and updated.
	No specific cleaning specifications in place.	General cleaning specifications exist.	Specifications conforming (BICSc) standards in place for each building / zone and regularly reviewed and updated.
	No auditing in place	Some ad hoc auditing and customer feedback, no clear remedial processes in place	Systematic auditing and customer feedback with remedial measures in place

# PORTERING

- Factors affecting portering efficiency and effectiveness
- Operating models
- Tasks associated with operating models
- EMS benchmark
- Qualitative maturity assessment



# Factors affecting portering efficiency and effectiveness

## Cleaning factors

Virtually all the factors that affect cleaning efficiency also affect portering. Below are additional factors that have a significant impact.

## Operating models

There are 3 main operating models: building dedicated, zonal and centralised. The advantages and disadvantages of these are discussed later.

## Locking systems

Locking and unlocking is generally the porters duty but can also be carried out by security, cleaners and others for individual offices. Systems that lock and unlock electronically are also becoming more common and reduce the workload.

## Distribution of sites

The size and location of buildings has an impact. Where there are many campuses or satellites this particularly affects supervision, time to travel and speed of response.

## Services provided

The range of tasks carried out by porters varies greatly. The main activities are listed later with associations to the operating models. It should be noted that all these activities have to be done and restricting porters tasks can have an adverse impact on the efficiency and effectiveness on other staff who then pick them up.

# Operating models

Model	Advantages	Disadvantages
Building dedicated	Tailored service popular with customers. Task flexibility. Identifying intruders. Speedy response.	Resource intensive. Difficult to balance resource across campus and provide cover. Inconsistency of service. Wasted time waiting to meet customer demand
Zonal	Balance of building knowledge with resource flexibility and service consistency.	Short of full resource flexibility across campus and scope for inconsistency. Lack of knowledge outside their zone
Centralised	High degree of consistency, resource flexibility and economies of scale (often leading to reduced resources),	Only effective with clear SLAs and sophisticated job management systems. Reduced task flexibility and low expert knowledge of zones and departmental needs. Slow response.

- The optimum model will depend on how these strengths and weaknesses play against the university's objectives.
- Some inconsistency is inevitable across different buildings and campuses.
- Reducing porters' task flexibility may make other staff less effective and efficient.

# Tasks associated with operating models

Task / model	Building	Zonal	Central
Room set up / furniture moves	X	X	X
Cleaning	X	X	X
Waste disposal	X	X	X
Exam hall layout		X	X
Locking/ unlocking buildings	X	X	X
Enquiries	X		
Mail	X		
Open day management	X	X	X
Alarm testing	X		
Fault reporting	X		
Soft Security	X		

# Effectiveness and cost of activities under different models

Activity	Model 1 (delocalised / bespoke)	Model 2 (Zonal)	Model 3 (Central)
General Portering	E	E	E
	C	C	C
Cleaning	E	E	E
	C	C	C
Waste disposal	E	E	E
	C	C	C
Exam hall layout	E	E	E
	C	C	C
Opening / closing	E	E	E
	C	C	C
Enquiries	E	E	E
	C	C	C
Mail	E	E	E
	C	C	C
Open day management	E	E	E
	C	C	C
Alarm testing	E	E	E
	C	C	C
Fault reporting	E	E	E
	C	C	C
Soft Security	E	E	E
	C	C	C
Reception	E	E	E
	C	C	C
Driving	E	E	E

This chart show how, in general terms, the activities can be delivered by the different models in respect of  
**Cost** – high, medium, Low  
**Effectiveness** – high, medium, low



# Variations

## Combinations

The models are not exclusive and can be combined to satisfy particular needs. Some buildings may have specific needs while other areas lend themselves to a central approach.

## Additions

Variations in demand are often an issue in portering efficiency. Leicester has addressed this by adding tasking such as also cleaning windows and clean carpets, large scale moves, simple routine maintenance, transporting some hazardous materials, litter picking, winter gritting, reception in some buildings, assisting in some security activities like directing traffic, reserving parking.

This can be particularly effective if it frees time from other staff like skilled tradesmen and even academics for more productive work. It should not however be confused individual porters picking up additional ad hoc tasks in specific buildings.



# Case studies

## Central model

*Some Universities adopt a centralised model which is very efficient, but must be run in a highly disciplined way with little room for “ad-hoc” tasks.*

The University runs a centralised model with only a few dedicated porters for shared buildings with specific needs (for example the library, which is 24/7/365). Moving to this model from a decentralised model is calculated to have saved the University 23% of its PAC budget over 4 years. Overtime payments are minimal and mainly result from backfilling for library porter absences; all overtime is recharged and Porters are paid the “Living Wage” rate. The duties of the porters are very standardised and include:

- Setting up rooms for teaching and exams
- Office moves
- Teaching room support (AV etc)
- Waste collection and sorting (for example furniture and electrical)
- Mail
- Soft security and locking / unlocking buildings
- Conferences and events
- All jobs are booked through a central system
- Quotations are provided to requestees for approval in advance of carrying out a job
- There is a strict Service Level Agreement (SLA) in place regarding response times, hours of work and pricing of tasks.
- The main challenge of changing from a decentralised to a centralised model was seen as mainly being one of change: understanding exactly what is done now, ensuring everyone knows what the future service will look like and managing the transition.

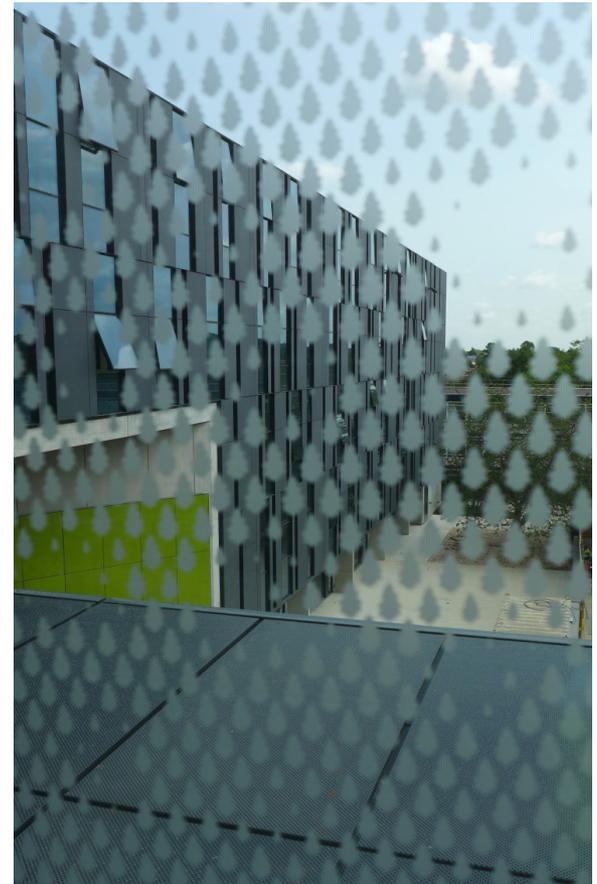
The University centralised the previously disparate cleaning, portering and security services. The organisation moved from a completely decentralised structure to a centralised one, which has been successful and well received by its customers. Some of the reasons attributed to the success of the model include:

- Invested heavily in training personnel, thereby raising standards and boosting morale
- A clear management structure that accelerates decision-making
- Flexible working practices
- Preparation of detailed cleaning specifications and schedules
- Independent quality inspections (independent to the staff that conducted the cleaning)
- Detailed management information (shared with stakeholders) regarding quality, cost, absences, highlights and lowlights
- Frequent client reviews.
- Change management is key to success
- Resulted in large savings (>50% budget over 3 years)
- Greater consistency in quality of service

# ADDITIONAL SERVICES - CASE STUDIES

## WINDOW CLEANING

Previously Estates employed a window cleaning company to clean all academic buildings at an annual cost in excess of £21,000. The quality of this service was also variable. The majority of the window cleaning budget was offered up as a cost saving last financial year so almost no window cleaning was carried out - leading to complaints on open days and other key dates. The Estates Portering Service purchased a 'reach and wash pole' window cleaning system at £2,600 enabling most of the low level 1st and 2nd floor windows to be cleaned on a regular basis by in-house portering staff and thereby improve the aesthetics of the Campus. Where and when necessary a local window cleaner is employed on an ad-hoc basis to provide a higher level clean. The savings are in the region of £6,000 p.a net and the Portering staff enjoy the new job and are more engaged.



# ADDITIONAL SERVICES - CASE STUDIES

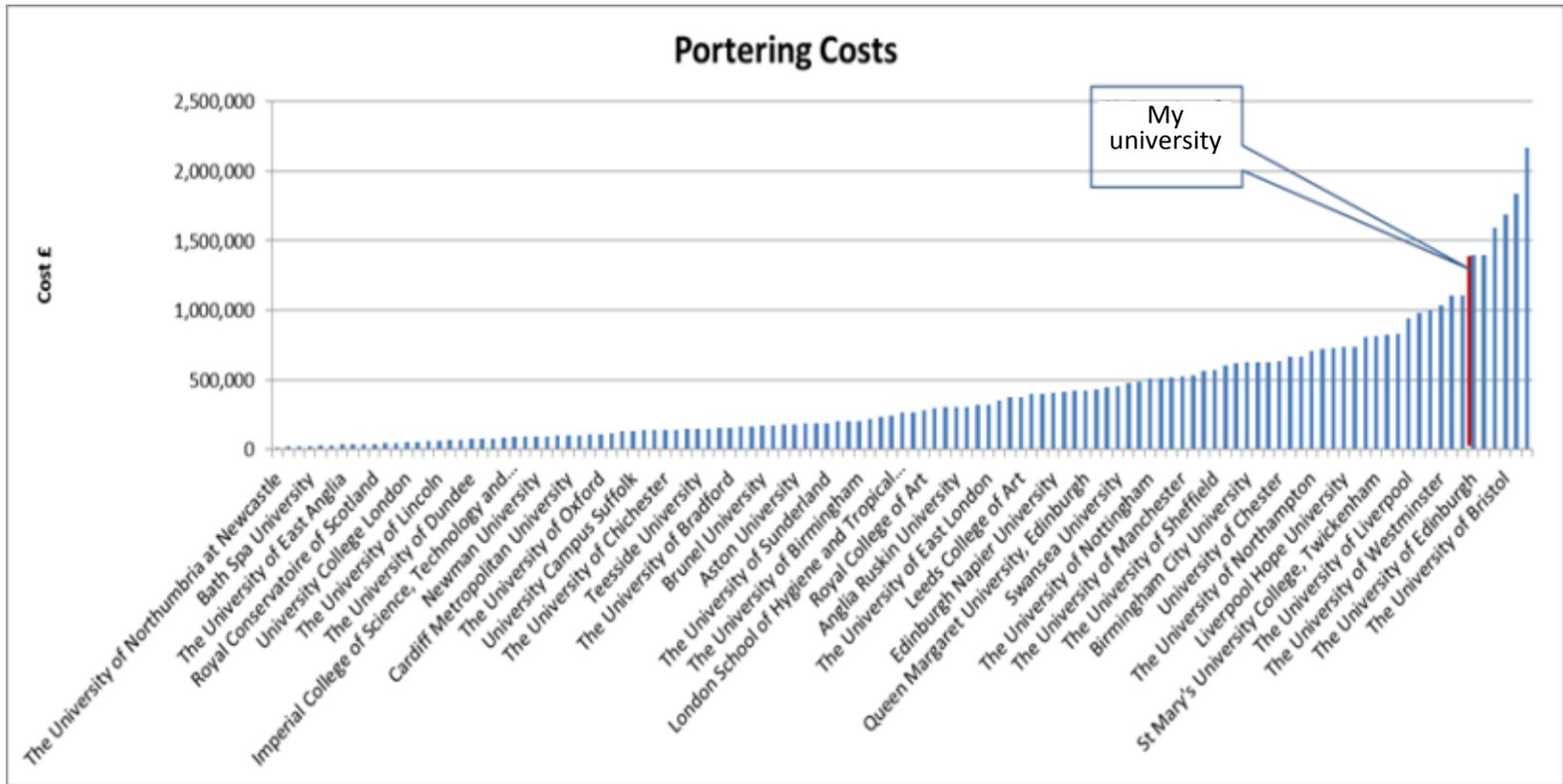
## CHEWING GUM AND LITTER PICKING

As an active campus with high footfall it suffers from litter and chewing gum. The traditional method of removal of litter had been a sit-in road sweeper, which often suffered from mechanical breakdown (due to the mix of water and salt sucked up, and sensitive hydraulics). It was decided to 'cut our losses' and scrap the road sweeper, which was proving very expensive to maintain. Instead, they purchased a couple of hand road sweepers called 'Billy Goats' that could be used in all portering zones and also employ a permanent litter picker who could patrol the Campus all day. The result has been a much cleaner campus that often attracts positive comment for its tidiness. It also saved the maintenance and repair bills on the road sweeper.

Chewing gum was previously removed by scraping by hand; this left a sticky residue that took time on hands and knees to remove. A new system called Ecogum has been purchased which heats and jet blasts the chewing gum away and does not leave any residue. It is used by the Porters on Saturdays when they have to be on site to unlock and lock, yet have a lower work load.



# EMS benchmark (2013)



# BENCHMARK COMMENTS

## Variability

The range of costs shown is huge. This partly reflects the factors outlined above. There are also big differences in what is counted in portering costs. Costs that appear in central budgets in some institutions will appear in faculty or department costs in others. For example some institutions recharge some costs, especially overtime, which would make them appear much lower.

## Effectiveness of resources

Porters can also carry out many tasks that are performed by others at other institutions. Making the best use of time of skills tradesmen and even academics is clearly a more effective use of resources.



# Qualitative maturity assessment – Portering

Factor / maturity	Low	Medium	High
People	No clear structure and no path for career development	Structure exists, but no path for career development	Clear structure with career opportunities such as team leader / manager.
	Little or no training in specialist aspects of work	Basic training in the “must have” aspects of the job.	Enhanced training and qualifications to multi-skill staff to cover for one another.
	Low morale, high turnover / absence, inflexible, cover difficult	Manageable turnover / absence. Cover is provided but not seen to be fair.	High morale. Low turnover / absence. Flexible staff work in transparent system to provide cover

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	No auditing in place	Some ad hoc auditing and customer feedback, no clear remedial processes in place	Systematic auditing and customer feedback with remedial measures in place
	Flexible working is not evident. Tasks are rigid, use of external providers common	Some flexibility in tasks, overtime common. Some multi-skilling.	Flexible working embedded and providing added value services. Hours worked to suit demand and new technology.