



ICSC European Retail Property School

Operations, Common Area Maintenance & Sustainability

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Land Securities UK



Operations, CAM & Sustainability

Agenda

- Common Area
- Centre Operations
- Who pays?
- Basic Operational Services
- In-house or out-source?
- What needs maintained?
- Repair or replace?
- Health and safety
- Sustainability



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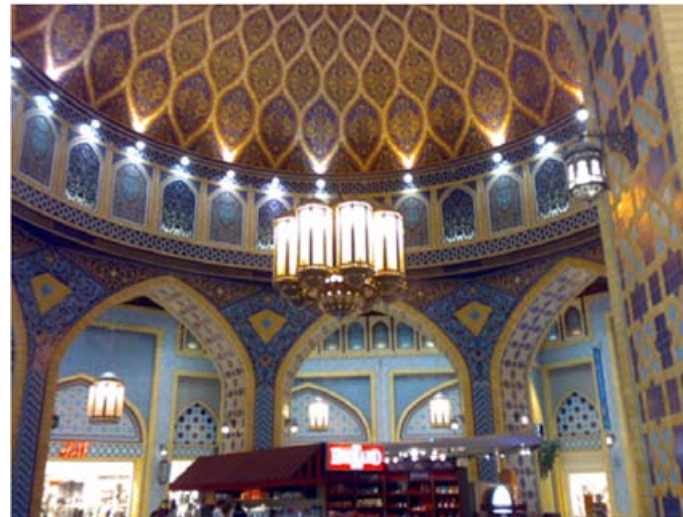


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What is the Common Area?

- Roofs and structure.
- Entrances and malls
- Customer areas and facilities
- Service corridors and stairs
- Delivery and loading areas
- External walkways and pavements
- Car park and roads
- Services supporting the above



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Factors Affecting Requirements and Costs

- Open / covered / enclosed.
- Location
- Age
- Design
- Materials and finishes
- Size
- Car park
- Extent of mechanical & electrical services



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(CAM) Service Charge Costs?

- Security, health & safety
- Cleaning, waste management, hygiene services
- Landscaping, snow clearance
- Electricity, gas, water, drainage
- Customer services
- Maintenance and repairs
- Property and facilities management costs and fees
- Property taxes, insurance
- Marketing



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ICSC European Service Charge Guide

- A landmark industry guide on shopping centre service charges across Europe
- Incorporates research from 27 European countries
- Launched October 2011



International Council of Shopping Centers European Service Charge Guide



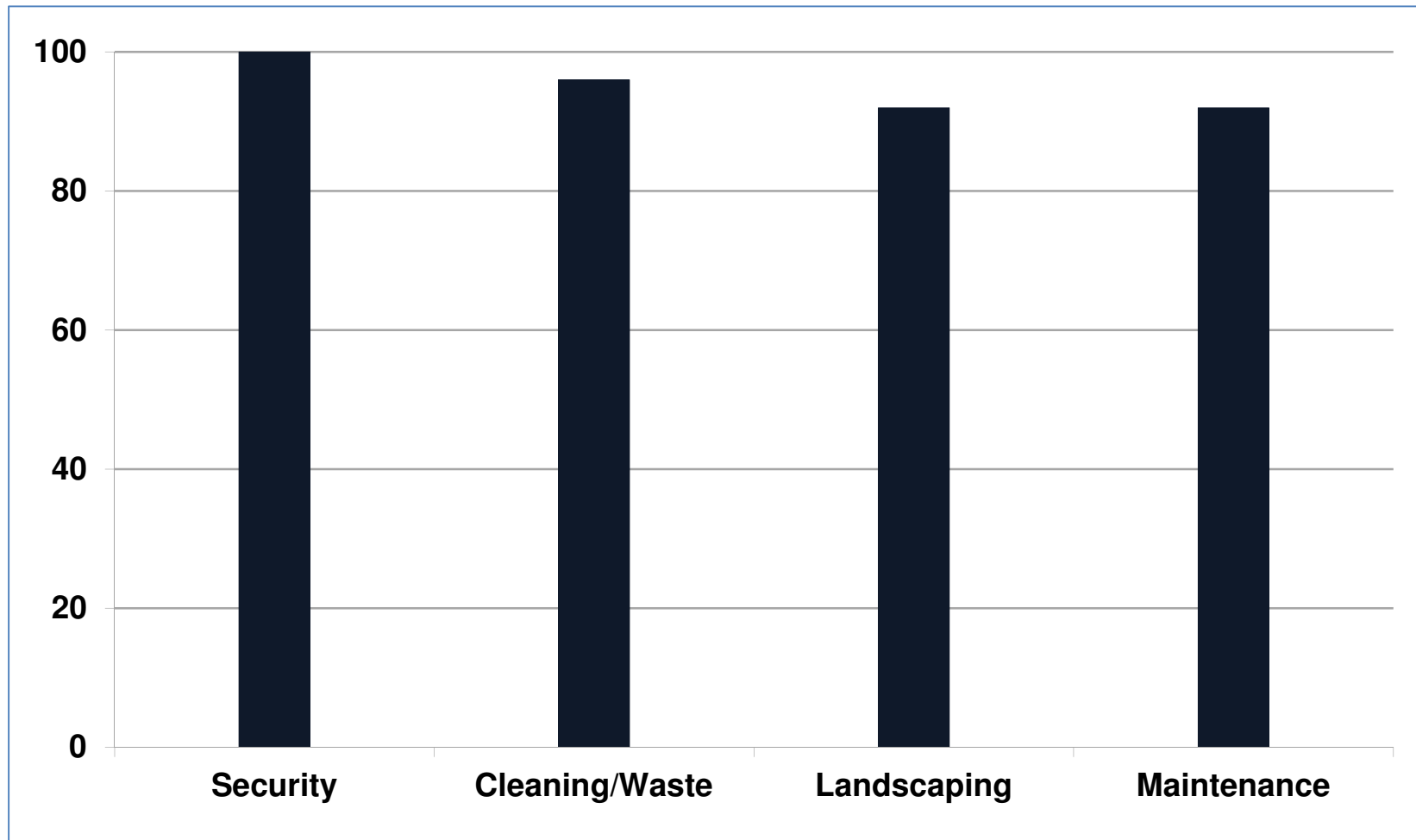
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Why is this Guide necessary?

- The ICSC identified that there is a “great disparity” in the way service charges are both measured and paid across the continent, meaning there are big discrepancies between the costs incurred by retailers
- Retail landlords are under pressure to reduce service charges and increase transparency to compete in a European marketing
- Service charges remain a major source of conflict between landlords and occupiers

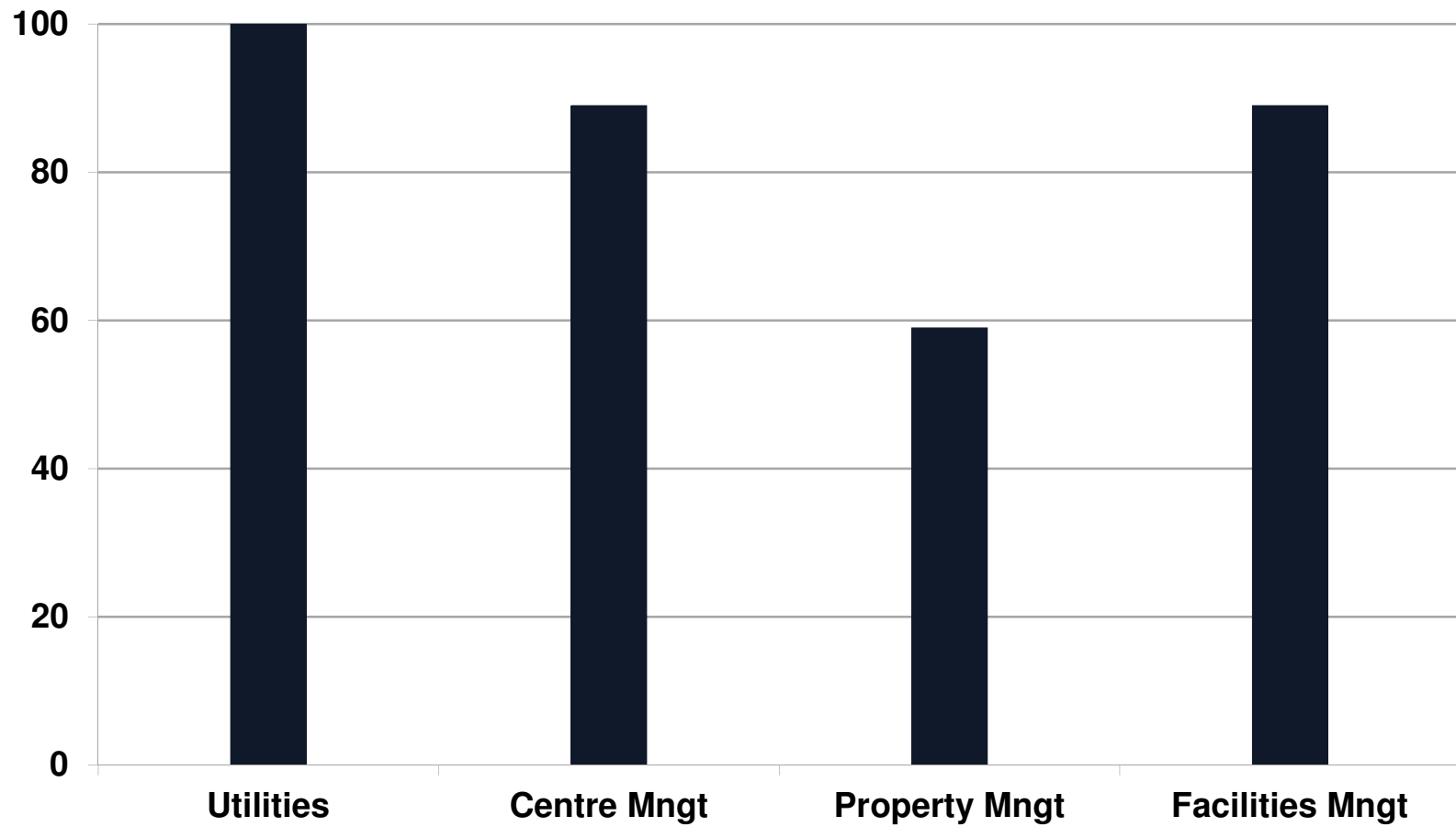


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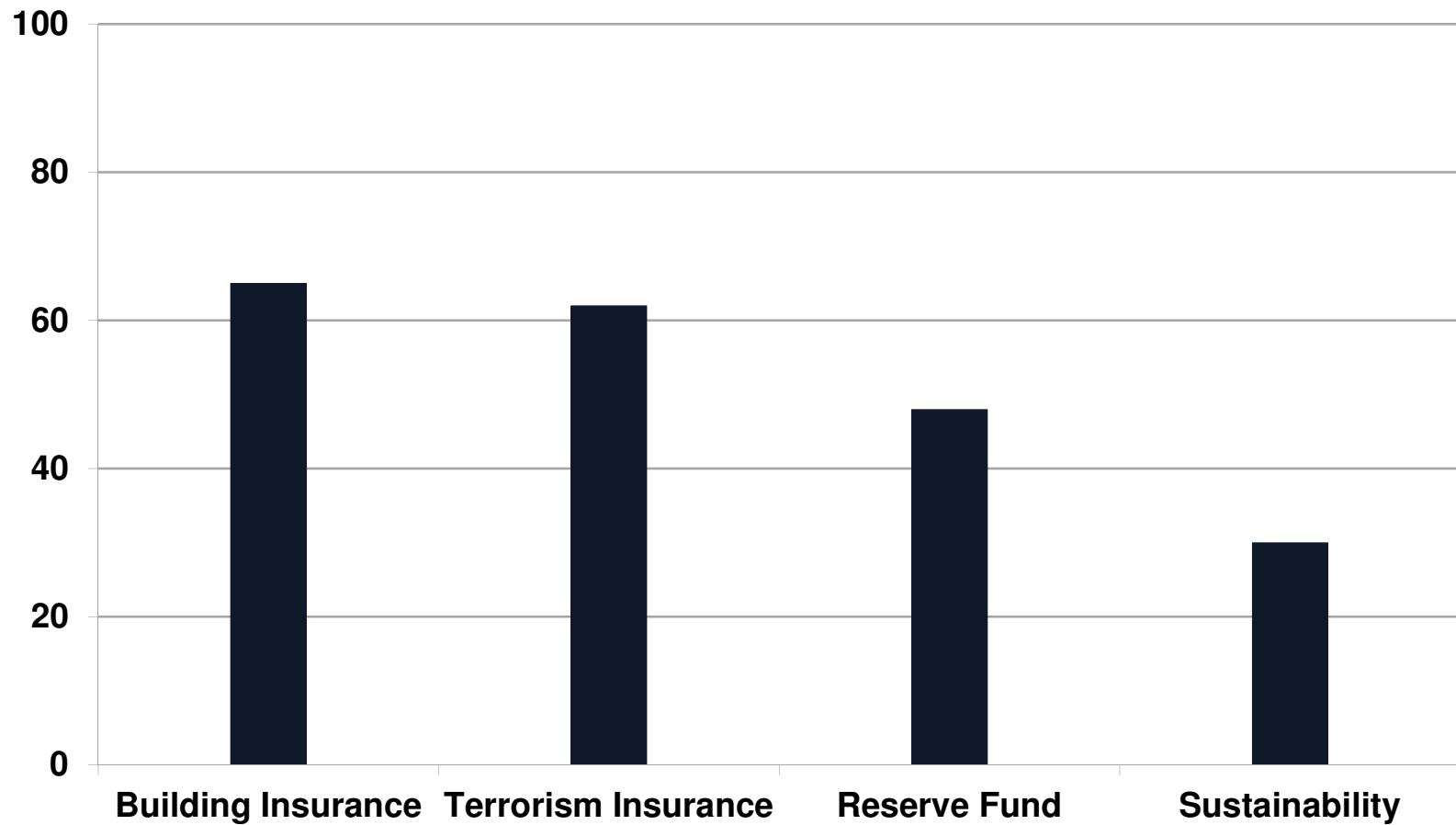


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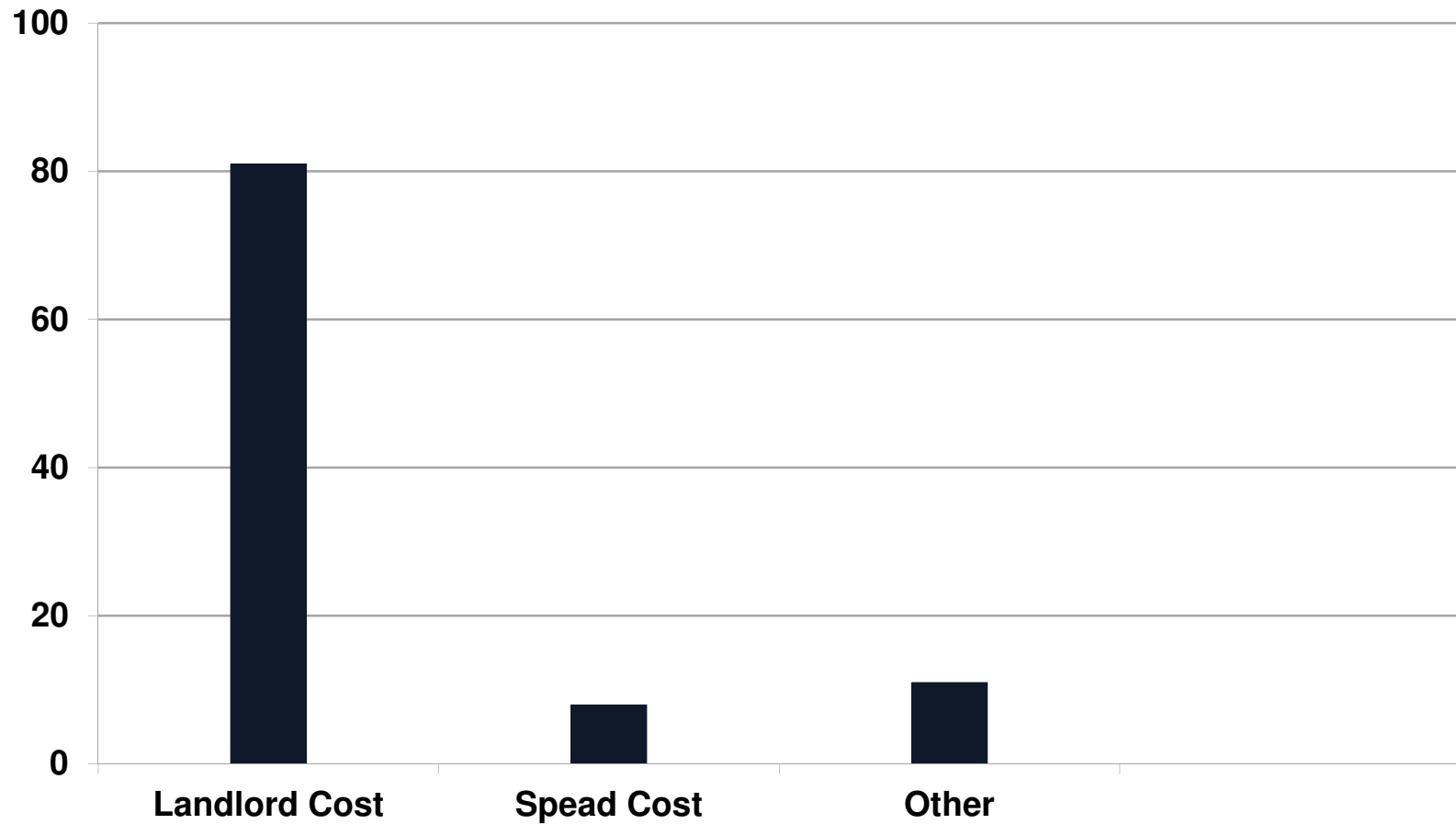
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Apportionment

- Gross Lettable Area (GLA) or Gross Internal Area (GIA)
- Weighting
- Discounts
- Schedules
- Vacant unit costs



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Basic Operational Services

- Security,
- Health & safety
- Cleaning
- Waste management
- Landscaping
- Maintenance and repairs



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Cleaning

- Why clean?
- What needs cleaned?
 - Internal
 - Food courts
 - Car parks
 - External
- Frequency
- Products and process





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Internal

- Floors, stairs, escalators, lifts
- Entrances and glazing
- Street furniture
- High level





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Internal

- Other mall surfaces
- Glass partitions
- Toilets and facilities



- Design issues



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Car parks

- Surface
- Multi -storey





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External

- Vertical glazing
- Building facade





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External

- Glazing canopies





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External

- Gum Removal





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External

- Roofs and gutters
- Plant areas
- Pest control





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Cleaning

- Frequency
 - Specified in contract
 - Relevant to need and cost
- Products and process
 - Restrictions
- Inspections and monitoring
- Cleaning safely!



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Waste Management

- Sources of waste
 - Retailers and restaurants
 - Public waste
- Types of waste
- Waste hierarchy
- The economics of waste management





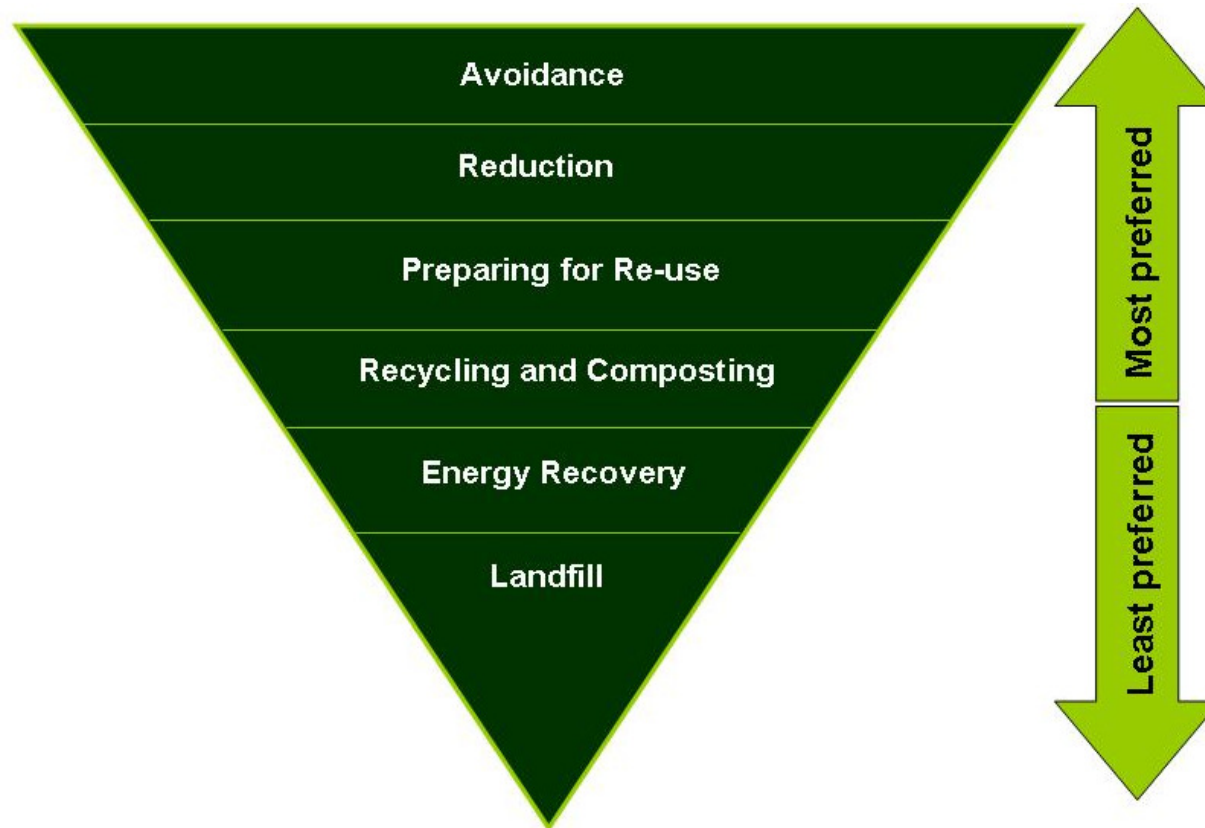
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Types of Waste

- Cardboard packaging
- Plastic, polystyrene and polythene
- Organic (food) waste
- Glass, metal, wood
- Cooking Oil
- Hygiene services waste



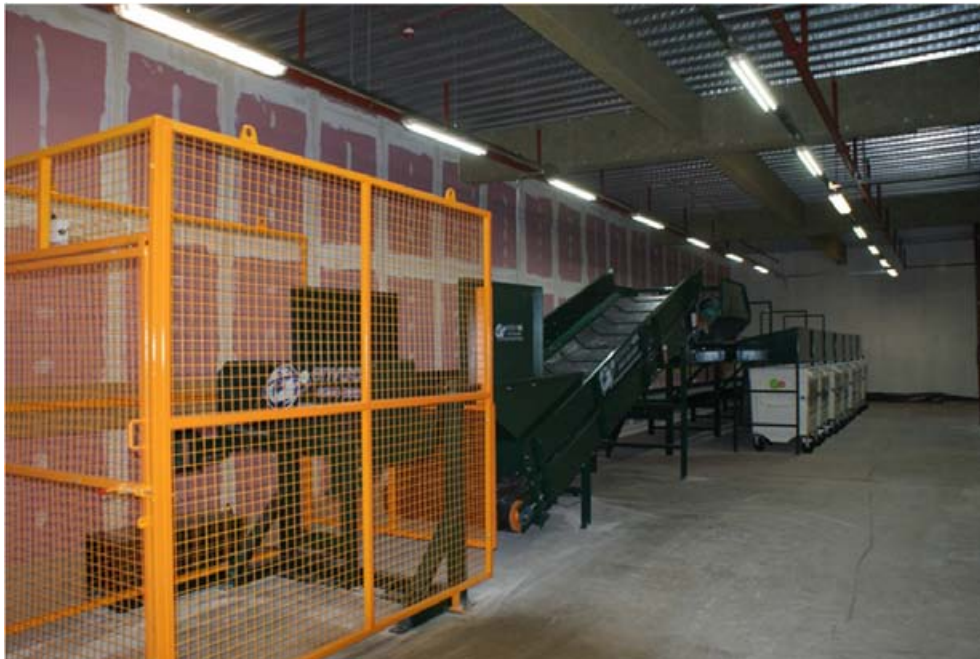
Waste Hierarchy





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Economics of Waste Management



Economics of Waste Management

- Anaerobic digestion





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Anaerobic digestion





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Economics of Waste Management





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Economics of Waste Management

- Avoid cost
 - Landfill costs/taxes
- Cost of recycling
 - Sorting waste streams
 - Equipment costs
 - Transportation costs
 - Meeting statutory requirements
- Income
 - Materials purchased for re-use or recycling
 - Market fluctuates with local demand





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Landscaping

- Internal
- External





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Considerations

- Maintenance requirements
- Suitability
 - Environment
 - Height etc.
- Cultivation and watering
- Security
- Seasonal planting





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Maintenance and Repairs

- Responsibility
 - Owner or occupier?
 - Repair or improvement?
- Owners requirements
 - Maintaining value of the asset
 - Avoiding maintenance backlog
 - Remain relevant and desirable to occupiers
- Physical inspection / condition survey



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Inspection / Condition Survey

The purposes of a conditions survey are to:

- Understand current conditions and degree of deterioration of the building
- Identify the causes of deterioration so that appropriate repair methods can be specified
- Assess the extent of works, prepare for budget, plan the implementation and program



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Funding and Budgeting

- Fully expensed and recovered from service charge
- Recoverable / non-recoverable
- Forward funded / amortised
- Sinking or depreciation fund



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Funding and Budgeting

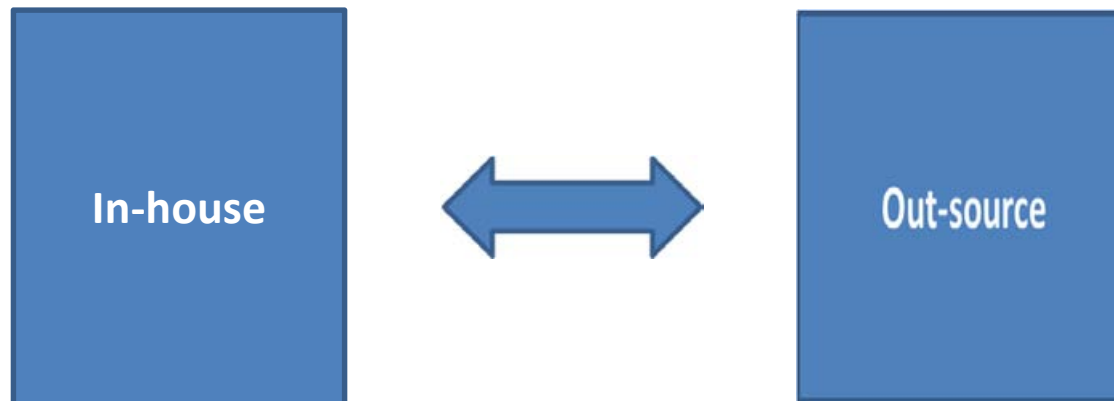
- *The Conventional Approach* – Maintenance budget is a percentage of the annual budget.
- *The Formula Approach* - Maintenance budget is derived from agreed formula such as, cost per unit area or a percentage of current replacement cost
- *The Condition-Based Approach* - Incorporates a thorough survey of conditions of the building to identify needs . Though accurate, it is a time-consuming and costly exercise that is difficult to be adopted on an annual basis



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Maintenance and Repairs

- Who does it?





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In-House

Pros

- More strategic – acting on behalf of owner directly
- More stable – no conflict of interest or contracts to renew
- More direct – faster decisions

Cons

- Procedures – have to develop own processes and procedures
- Trends – less aware of industry trends or innovation
- Accountability – lack of oversight



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Out-Sourced

Pros

- Less risk— risk offset to third party
- Specialist – it is the contractor’s core activity
- Flexibility – easy access to additional resources and skills
- Reduced workload for HR and line management

Cons

- Staff turnover – outsourced staff do not have as much loyalty
- Clients personnel still need to look after the outsourced FM, some overlapping,
- Potential conflicts of interest



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Building Fabric

- Structure, walls and cladding
- Roofs
- Floors
- Glazing
- Exterior surfaces e.g. roads, car parks, etc.
- Finishes
- Doors, gates, fittings



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Building Structure External

- Concrete failure - often a hidden problem until too late with major cost implications. First sign is spalling concrete.
- Corrosion of steel reinforcement - caused by the ingress of chlorides from de-icing salts and coastal environments, and carbonation of the concrete surface leading to loss of alkalinity and hence reduced protection against corrosion





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Building Structure External

- Damaged overflow pipe ignored for a long period





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Building Structure Internal

- Common parts door inadequate for normal wear and tear





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Shopping Centre Roofs

- Types – pitched, flat, curved, green
- Constructed from - glass, asphalt, bitumen, membranes, natural materials (stone, clay, slate etc.)
- Insulation - polyester, metal, glass, fabric etc.



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Maintenance

- For well-designed and well installed roofs, normally maintenance tends to be minimal
 - Visual inspection
 - General checking and clearing any obstructions to rainwater flow
 - Removing any general vegetation build-up
- Inspections often prejudiced by difficult access arrangements needing specialist, expensive equipment



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Roof Maintenance

- Gutter maintenance ignored – probably due to inadequate access/out of sight



Roof Maintenance

- Build up of guano





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Roof Maintenance

- Roof skylights defect – inadequate fixings letting go in high winds – note missing panels





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Roof Maintenance

- Roof defect – inadequate fixings letting go in high winds





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Roof Maintenance

- Flat roof inadequate falls





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- The inflatable roof of the Metrodome in Minneapolis collapsed Sunday 12th Dec 2010 after a snowstorm that dumped 17 inches of snow.





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Mall Floors

- Types of floor surface
- Operational problems
- Maintenance issues
- Repair or replace



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Operational Problems

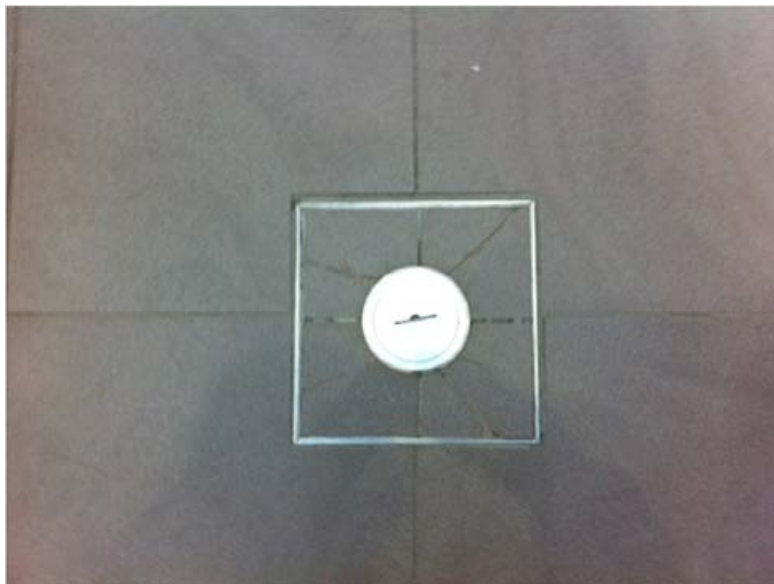
- Open to the elements – slip hazard



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Maintenance Issues

- Tile failure due to poor specification (wrong material – too thin) and poor workmanship





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Maintenance Issues

- Worn flooring
- Repair or replace?





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Glazing

- Where used
 - Roofs and skylights
 - Glazed canopies
 - Curtain walling
 - Entrances and doors
- Types of glazing
- Maintenance issues





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Maintenance Issues

- Impact damage





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Glazed Canopies

- Tell-tale butterfly shape at centre of failure suggests Nickel Sulfide impurities





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Exterior Surfaces and Car Parks

- Types of materials
 - Paving
 - Block paving
 - Wooden decking
 - Tarmac
- Maintenance issues





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Maintenance Issues

- Subsidence due to poor sub-strata





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Maintenance Issues

- Delaminating car park coatings





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Maintenance Issues

- Frost damage
- Pot holes





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Building Fabric

- Finishes
- Doors, gates, fittings





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Mechanical & Electrical

- HVAC (Heating, Ventilation and Air Conditioning)

Central plant systems

- Fire protection systems
- Plumbing and drainage
- Electrical systems / lighting
- Lifts and escalators
- Energy management systems
- Security systems
- Information technology





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HVAC (Heating, Ventilation and Air Conditioning) Central Plant

Considerations:

- Life expectancy of 15 to 20 years
- Placement on roofs- tonnage
- Regulations – coolant
- Efficiency and capacity
- Environment – noise
- Inspections
- Safe access



HVAC (Heating, Ventilation and Air Conditioning)

- Open to the elements





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Fire Protection Systems

- Fire Alarm
- Smoke and smoke detection
- Public address systems
- Roof vents
- Mechanical smoke extraction
- Gas shut off
- Smoke curtains and shutters
- Sprinklers
- Hose reels
- Fire suppression systems





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Plumbing and Drainage

- Potable water (drinking water)
- Sprinkler tanks, pipework , valves and pumps
- Toilets, sinks, showers
- Water features
- Irrigation systems
- Rainwater drainage
- Foul drainage
- Statutory controls
- Grease traps



Plumbing and Drainage

- Calcium build up in toilet waste pipes



- Grease build up in poorly maintained pipework



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Grease Traps





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Grease Traps





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Electrical Systems and Lighting

- High voltage cables and transformers
- Low voltage distribution and meters
- Generators and emergency lighting
- Other on site generation
- Mall lighting
- Feature lighting
- Illuminated signage
- Seasonal lighting
- Re-lamping

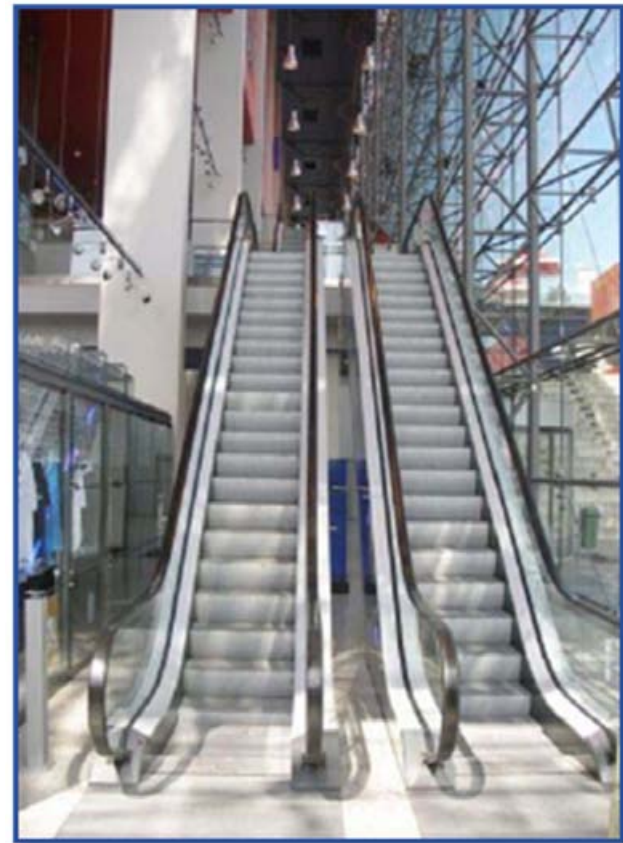




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Lifts and Escalators

- Consequences when out of service
- Compliance with Regulations





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Building Management Systems (BMS) and Energy Management Systems

- Intelligent buildings
- Control systems





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Security Systems

- Intruder alarms
- Access control
- CCTV (Closed Circuit Television)
- Car park barriers and pay machines
- Security gates and barriers
- UPS (Uninterrupted Power Supplies)



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Information Technology

- Computer systems
- Electronic directories and way-finding
- Website and digital platforms
- Finance systems
- Data storage and integrity
- Data logging systems
- Data protection legislation



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Maintenance

- Definition of terms used
- Why maintain plant?
- Maintenance options



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Definition of Terms Used

Servicing

Includes periodic inspection, cleansing, oiling (mechanical parts) and adjustments. The objective is to minimise wear and tear, and to prevent breakdown.

Repairs

Apart from regular servicing, building elements installation and facilities require repairs from time to time. Repairs are usually on a need basis and in most cases are passive response.



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Definition of Terms Used

Replacement

When a building element or part of a system reaches the end of its economic expected lifespan, repairs are not advisable. Replacement may be more cost effective

Upgrading

When a part or portion of the building or installation is enhanced to a higher standard or replaced with something more efficient, economical or to a higher specification



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Why Maintain?

- Equipment failures
 - Inconvenience customers
 - Require repairs
- Degraded performance
 - Decreased efficiency
 - Increased energy consumption / costs
- Timely servicing
 - Corrects deteriorating performance
 - Reduces customer complaints
 - Less expensive than failures



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Maintenance Options

Maintenance Regimes

Plans that consider the diversity of plant and operational circumstances to help implement the most effective strategy for each piece of equipment to avoid under-maintenance or overspending

- Business focused maintenance
- Condition based maintenance
- Planned preventative maintenance (PPM)
- Statutory and legislative maintenance
- Standard industry guides



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Maintenance Options

Business Focused Maintenance

- A full condition survey of plant establishes the likelihood of failure
- A risk assessment identifies the consequence of plant failure
- Maintenance levels and schedules then prioritise high risk, high consequences plant
- Assessment is made of the resource requirements based on the new maintenance schedules



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Condition Based Maintenance

- Concept based on – “if it isn’t broken, don’t fix it”
- Condition based maintenance should only be used on machines that show deterioration in some way and over a time period that allows a maintenance response before they fail

Planned Preventative Maintenance (PPM)

- PPM is a scheduled service visit carried out by a competent and suitable agent, to ensure that an item of equipment is operating correctly and to therefore avoid any unscheduled breakdown and downtime.



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Statutory and Legislative Maintenance

- Fitness of purpose for the health and safety of your building users. Assets that are controlled by statutory legislation are maintained to the appropriate standards at all times

Standard Industry Guides e.g. HVCAS - SFG20

- Recognised as the industry standard for businesses, responsible for maintaining, managing or specifying the maintenance of building services.
- These provide a clear guide for maintaining services and equipment to an agreed standard that is widely accepted.



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Considerations

- Life expectancy of item
- Condition survey
- Maintenance records
- Breakdown history
- Current operating expenses
- Projected repair and operation expenses
- Cost of replacement item
- Compare to the operating costs of new, high-efficiency equipment.
(Utility savings can be factored as a “payback” in a decision to replace)



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Practical Example - Passenger Lift

It is estimated that more than 50% of the existing 3 million lifts within Europe are over 20 years old (Source: Lift & Escalator Industry Association, 2012)

Lifts are usually designed to operate for 100,000 hours which realistically equates to around 20 years.

Towards the end of a lift's operational life, factors such as; availability of parts, aesthetic appearance, repair timescales and the general reliability become increasingly poor. This in turn can cause queues at peak times, customer complaints or increased maintenance costs.



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Practical Example Passenger Lift

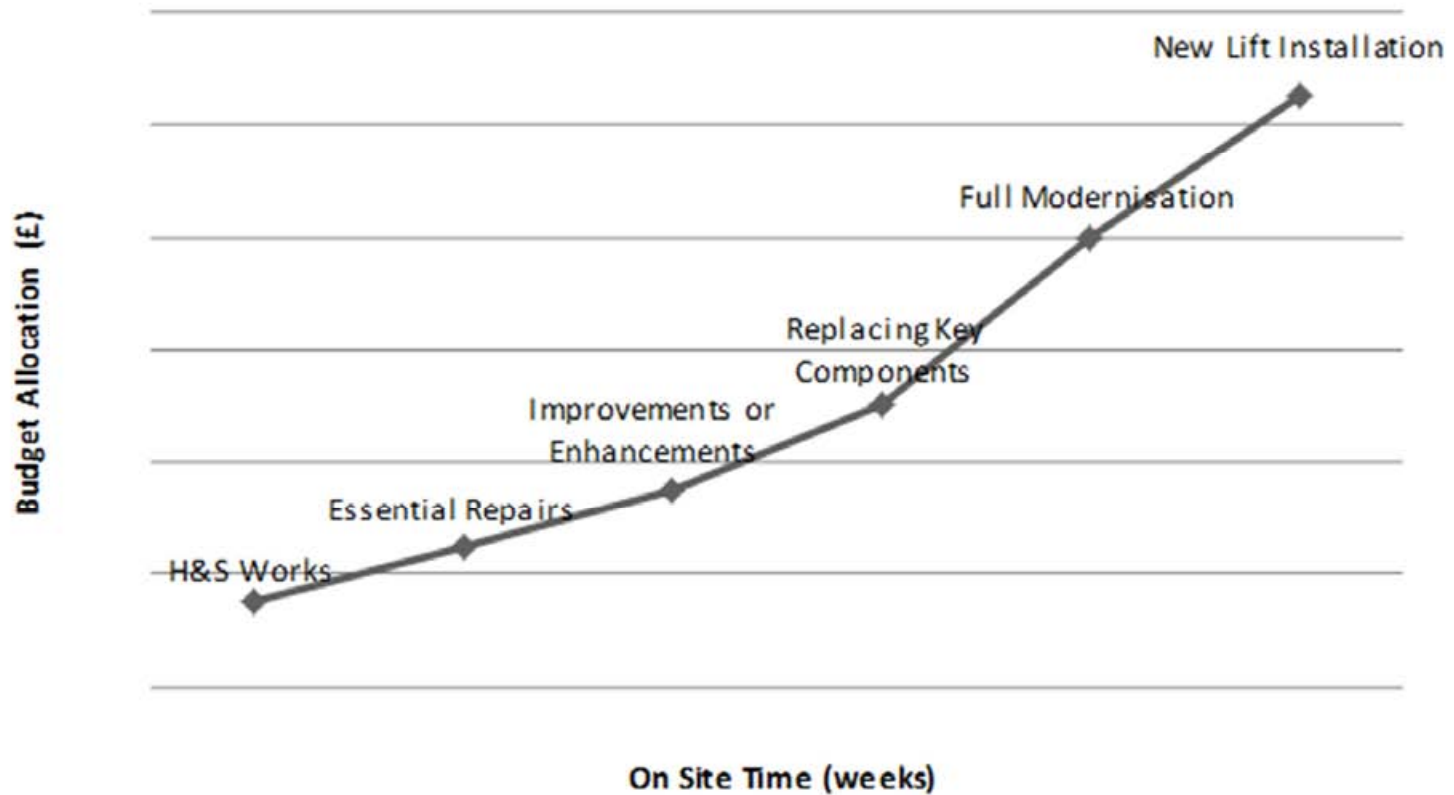
Options available

- Install a new lift
- Modernise the lift
- Refurbish the lift
- Conduct H&S works
- Replace key components
- Conduct essential repairs
- Undertake some enhancement or upgrade work



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Major Works Strategy





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Install a New Lift

The asset value will depreciate throughout the life of the equipment along with the reliability and aesthetics

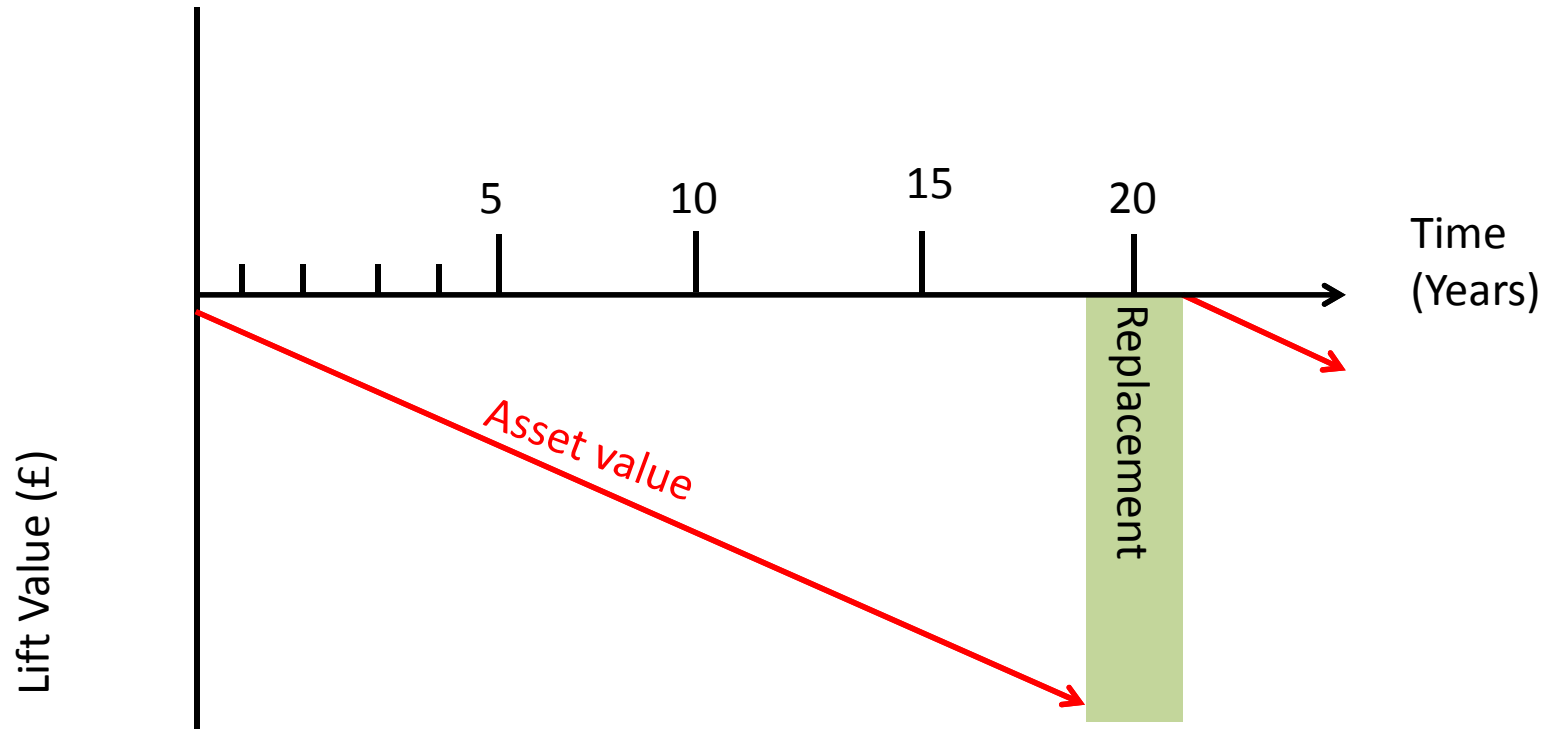
Opting for a full replacement lift will effectively start the life-cycle once again. This does offer additional benefits, including:

- Reduced Maintenance Costs
- Improved energy efficiency
- Use of latest technology
- System Integrity



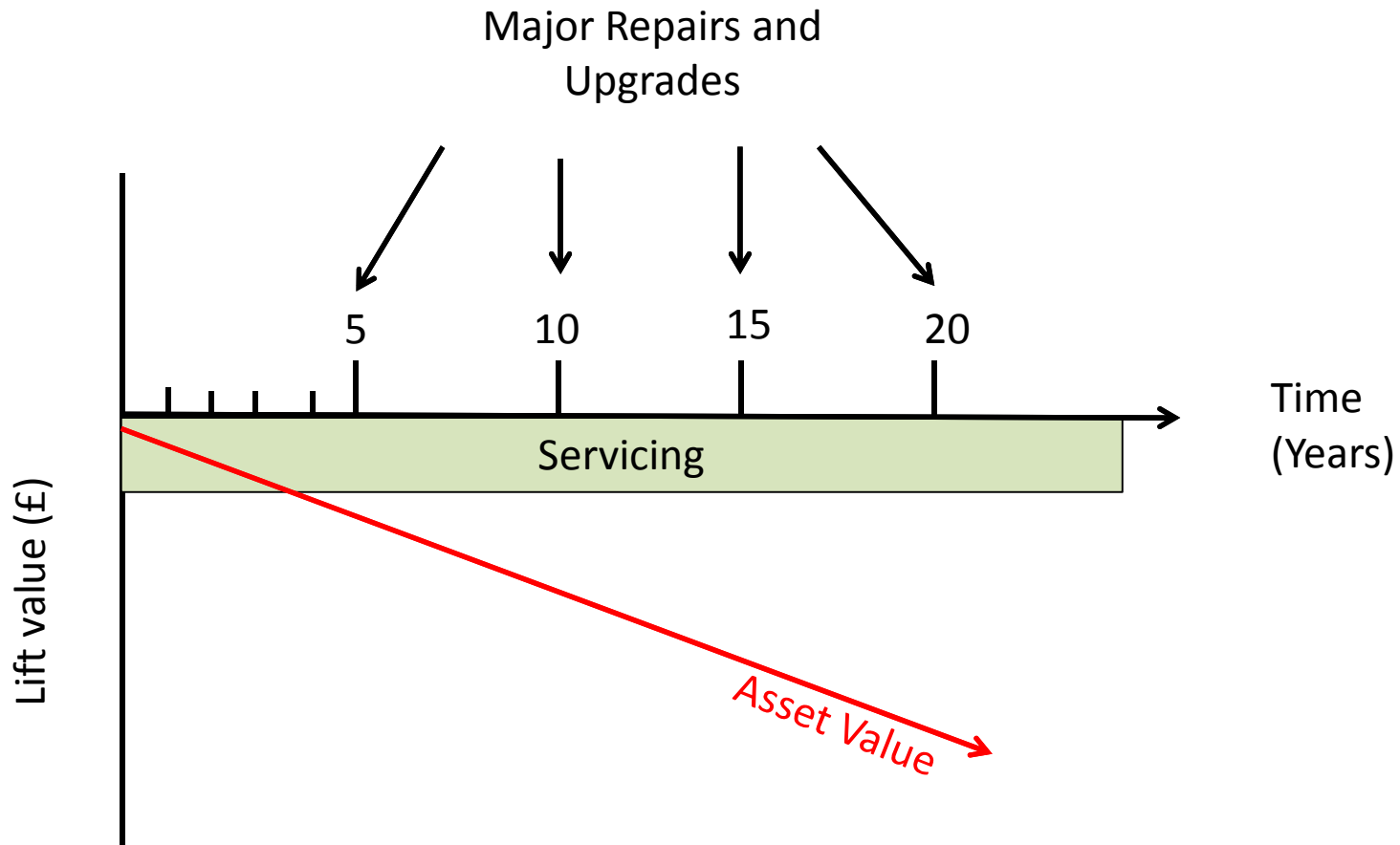
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A full replacement strategy assumes that the lift will be replaced in its entirety at the end of its life





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Case Study

The lifts at 5 Strand, London were installed in the 1970's and had become unreliable and high energy consumers

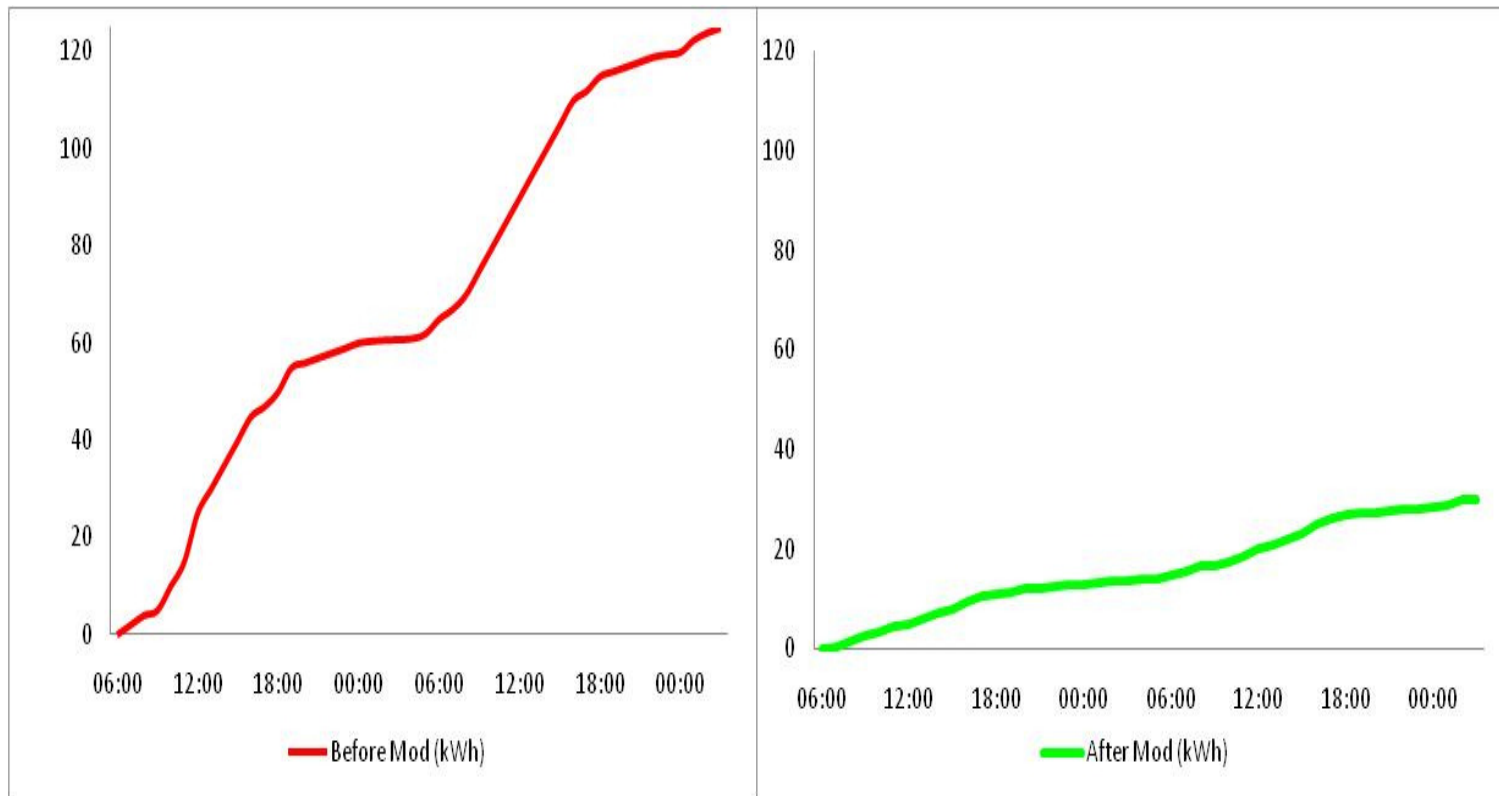
The lifts were fully modernised in 2012

The works improved the reliability and the ride/comfort levels, reduced noise levels and produced energy savings by 75%.

The maintenance costs were also reduced by 54%.

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The charts below show the energy consumption before and after major works:





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Health & Safety

- Public safety – CLEAN, SAFE, SECURE
- Risk Assessment
- Certification
- Safe access
- Safe systems of work
- Extraction duct cleaning



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Safe Access

- Secure access
- Roof edge protection





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Safe Systems of Work





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Extraction Duct Cleaning





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Park Lane Hilton



Strada – Bury St Edmunds



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Duct Cleaning

- Forensic report on fire showed build-up of grease on ducting at dangerously high levels
- Near miss – sprinklers prevented fire from spreading
- Centre had “valid” certificate from duct cleaning company





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Duct Cleaning

- Duct only cleaned to arms length!





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Sustainability

- What does it mean?
- Design considerations
- Operational considerations





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Design Considerations

- Use of natural light
- Green roof
- Water reclamation
- Low volume water usage
- Alternative energy sources
e.g. Ground source energy, P V,
CHP (combined heat and power)





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One New Change - Ground Source Energy System

- Europe's largest heat pump system
- 150 metres beneath city shoppers
- 60km of pipes transferring heat to and from underground aquifer
- Reduce carbon footprint by 10% / Saves £300k in energy bills





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Gunwharf Quays P.V. Installation

- Largest PV installation at any UK shopping centre (250kW)
- Generates 280,000 kWh annually
- 150 tonnes of CO2 saved in year one
- Lifespan of panels expected to be 35+ years
- 6 year ROI on operational calculations
- Cost £628k





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Fuel Cell at 20 Fenchurch Street, London

- Generates electricity by hydrogen-rich fuel (natural gas) reacting electrochemically with oxygen (air) to produce electrical current, heat & water
- First fuel cell to be installed in City of London Square Mile



- **3 key components:**
 - Fuel cell stack
 - M-bop
 - E-bop



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Sky Garden

- botanical garden at top of building
- span three floors and includes public terrace, restaurant and café
- highest public park in London
- designed to create an open and vibrant place of leisure





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Operational Considerations

- Recycling
- Environmental Management System
- ISO 14001
- Water Management
- Energy management



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Operational Considerations

- Recycling
- Environmental Management System
- ISO 14001
- Water Management
- Energy management
- Corporate Social Responsibility





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Conclusion

- Not as simple as you first think!
- Specialist knowledge and support required in most areas
- Constantly evolving
- Flexibility is key
- No “one size fits all” solutions



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Class Evaluation:

Please remember to complete the class evaluation by using your smartphone or tablet.

Class Evaluations Link:

survey.icsc.org/2014ERPS

ICSC John F. Howard School
for Retail, Merchandise & Professional
Studies, Turkey (11-12 February, 2014)

John F. Howard School for Retail Merchandise & Professional Studies, Turkey
12/02/2014

SESSION

Directions:
Please use the following to create the appropriate session.

SESSION

	Excellent	Good	Fair	Poor	
1. Satisfaction with the program content	5	4	3	2	1
2. Session increased my knowledge	5	4	3	2	1
3. Content was timely and relevant	5	4	3	2	1
4. Session and materials were organized	5	4	3	2	1

INSTRUCTOR

	Excellent	Good	Fair	Poor	
1. Satisfaction with the instructor content	5	4	3	2	1
2. Instructor demonstrated a strong command of the information	5	4	3	2	1
3. Instructor was enthusiastic, professional and kept me engaged in the training	5	4	3	2	1
4. Instructor provided practical and relevant examples?	5	4	3	2	1

COMMENTS

1. What issues, challenges or needs are you dealing with now that could be addressed by these educational activities?
2. What is the most valuable takeaway you gained from the session?
3. What educational material you recommend for the session?
4. Additional comments?

