

Contents

PREFACE	iii
THE EDITORS	v
INTRODUCTION	xiii
PROLOGUE The European Context for Facilities Management	xv

PART A FACILITIES AND THEIR MANAGEMENT

SECTION 1	Facilities and the Corporate Plan	A-3
Chapter 1.1	The scope of facilities	A-5
Chapter 1.2	The performance of facilities	A-15
Chapter 1.3	The costs of facilities	A-27
SECTION 2	Facilities Management	A-35
Chapter 2.1	Facilities and core business management	A-37
Chapter 2.2	Financial management	A-57
Chapter 2.3	Information management	A-67
Chapter 2.4	Asset management	A-79
Chapter 2.5	Quality management	A-91
Chapter 2.6	Risk management	A-107
Chapter 2.7	Project management	A-117
Chapter 2.8	Value management	A-125
Chapter 2.9	Change management	A-131

PART B PREMISES

SECTION 3	Commercial Real Estate	B-3
Chapter 3.1	Interests in property	B-5
Chapter 3.2	Leasehold conditions	B-15
Chapter 3.3	Landlord's asset management and service charges	B-25
Chapter 3.4	The valuation process	B-35
Chapter 3.5	Valuation methodology	B-43
Chapter 3.6	Premises and property 'investment'	B-57
Chapter 3.7	Property insurance and other cover	B-65
Chapter 3.8	Depreciation of property	B-79
Chapter 3.9	Commercial property management	B-89

Contents

SECTION 4	Space Management	B-93
Chapter 4.1	Space the premises cost driver	B-95
Chapter 4.2	'Churn'	B-137
SECTION 5	Premises Operating Services	B-141
Chapter 5.1	Premises operating costs in context	B-143
Chapter 5.2	Maintenance	B-147
Chapter 5.3	Cleaning	B-159
Chapter 5.4	Energy	B-167
Chapter 5.5	Water and sewerage services	B-209
Chapter 5.6	Waste management	B-215
Chapter 5.7	Interior landscaping and décor	B-225
Chapter 5.8	Environmental management strategy	B-231
SECTION 6	Fitting-Out and Alterations	B-239
Chapter 6.1	The nature of fitting-out and alterations	B-241
Chapter 6.2	Fitting-out costs	B-245
Chapter 6.3	Procuring the project	B-251
 <i>PART C SUPPORT SERVICES</i>		
SECTION 7	Business Support Services	C-3
Chapter 7.1	Security	C-5
Chapter 7.2	Storage	C-19
Chapter 7.3	Stationery	C-27
Chapter 7.4	Printing and reprographics	C-33
Chapter 7.5	Information and communication technology	C-41
Chapter 7.6	Document distribution	C-63
Chapter 7.7	Office furniture	C-67
Chapter 7.8	Motor fleet management	C-73
Chapter 7.9	Disaster prevention and recovery	C-85
SECTION 8	Staff Support Services	C-93
Chapter 8.1	Catering	C-95
Chapter 8.2	Health and safety at work	C-109
Chapter 8.3	Sports, social and welfare facilities	C-121

Contents

PART D RELOCATION AND DEVELOPMENT

SECTION 9	Relocation	D-3
Chapter 9.1	Premises and business performance	D-5
SECTION 10	The Development Option	D-31
Chapter 10.1	The development process	D-33
Chapter 10.2	Objectives underlying the development process	D-47
Chapter 10.3	The economics of development	D-53
Chapter 10.4	Funding of proposals	D-69
Chapter 10.5	Financial incentives and mobile investment	D-83
Chapter 10.6	Whole-life economics	D-91

PART E TAXATION

SECTION 11	Taxation Considerations	E-3
Chapter 11.1	Taxation and Europe	E-5
Chapter 11.2	Taxation systems	E-11
Chapter 11.3	Local taxation and revenues	E-21
Chapter 11.4	Value Added Tax	E-25

PART F THE FACILITIES AUDIT

SECTION 12	Facilities Auditing Processes	F-3
Chapter 12.1	The facilities management audit	F-5
Chapter 12.2	Benchmarking	F-9

PART G

Professional associations and educational institutions	G-3
Table of statutes and guidelines	G-7
Table of figures	G-11
Abbreviations	G-21
Glossary	G-23
Index	G-61

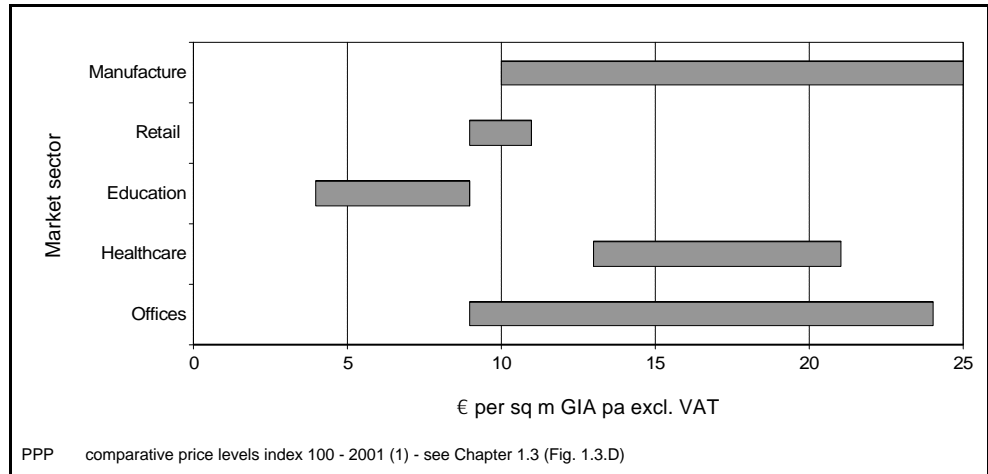
1.3.2 GENERAL COST COMPARISONS

Interpolation

Having 'dealt with' the troublesome issue of international cost comparison (and it must be recognised that the world's leading experts in this area spend most of their time disagreeing with each other!) the equally complex issues surrounding the variations in facilities costs between one building and another now need to be addressed.

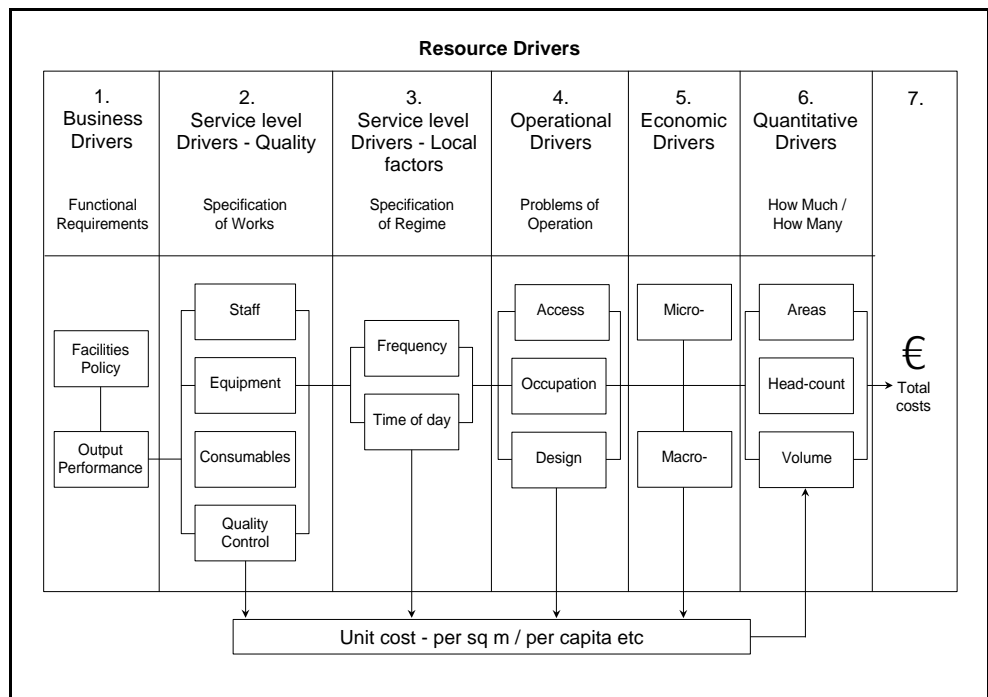
Inevitably there will be some overlap between this section and the discussion on 'benchmarking' in Chapter 12.2; the factors to be taken into account by readers, when interpolating the operating cost ranges in the text, are the same as needed for eliminating distorting factors when benchmarking peer group operating costs. Figure 1.3.E illustrates in the clearest possible way the enormous range of costs which exist in every facilities cost centre. In this example the cost range of cleaning per unit of gross floor area (excluding VAT - quite an important qualification!) is shown across a variety of occupancy types - €4 to €25 per sq. m. GIA pa to be precise.

Fig. 1.3.E
Typical range of cleaning expenditure by sector per unit of floor area



In order to make a high-level interpolation of the cleaning costs in individual buildings from the above ranges (anything other than 'high level' is not feasible from this - or any other - published data) the logic diagram at Fig. 1.3.F needs to be studied.

Fig. 1.3.F
Factors determining the cost of facilities



in effect they are very similar and that all references to leases should be taken as referring to commercial contracts. Fig. 3.1.A sets out the national equivalent terms for absolute in possession and leasehold interests.

Fig. 3.1.A
National equivalent
terms for absolute
in possession and
leasehold interests

Country	Title name		Restriction on ownership of property by foreigners
	Absolute in possession	Leasehold interests closest equivalent	
Austria	Eigentum	Meite	Yes (but not to EU members)
Belgium	Eigendom/propriété	Emphyteusis	No
Denmark	Adkomst	Tilbagekøbstret (Hjemfaldspligt)	Usually No
Finland	Omistettu maa	Vuokrattu maa	Usually No
France	Toute propriété	Bails	No
Germany	Eigentum	Miete	No
Greece	Kyriotita	Makrochronia enikiasi	No
Ireland	Freehold/fee farm grant	Leasehold	No
Italy	Diritto di Proprietà	Locazione	No
Luxembourg	Propriétaire	Louage de choses	No
Portugal	Direito de propiedade	Arrendamento	No
Spain	Propiedad plena	Arrendamiento	No
Sweden	Äganderätt	Tomträtt	No
The Netherlands	Eigendom	Erfpacht	No
UK: England and Wales	Freehold	Leasehold	No
UK: Northern Ireland	Freehold/ fee farm grant	Leasehold	No*
UK: Scotland	Feuhold	Leasehold	No

* However, a company registered in the England and Wales must register in Northern Ireland as well.

Source: Bernard Williams Associates

3.1.2 ABSOLUTE IN POSSESSION INTERESTS

Absolute ownership

In theory the owner of property absolute in possession (absolute owner) owns it outright and in perpetuity and a right is created in or against the land itself, sometimes referred to as a 'right in rem'. Absolute owners may do anything they wish upon it ie occupy and dispose of the land (and any buildings on the land) subject only to any rights others may possess either conferred by the owner or imposed by statute. Absolute ownership also carries with it the right to the soil below and the airspace above it but the extent of the ownership in these categories varies widely. In Austria for example salt belongs to the state, and uranium, silver, gold, and platinum belong to the finder whereas in Luxembourg, the absolute owners have the right to exploit all mines found on their property subject to the usual statutory restraint such as planning legislation. For a detailed breakdown on a member state basis see Fig. 3.1.B.

Fig. 4.1.E (n):
Step by step
approach to
standard method of
building
measurement.
Tenant efficiency

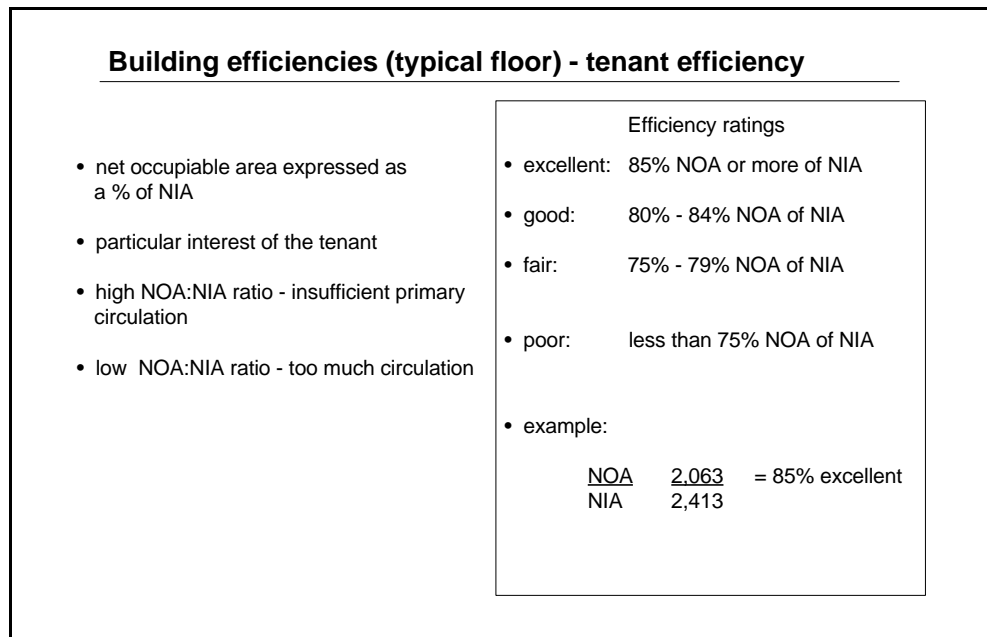
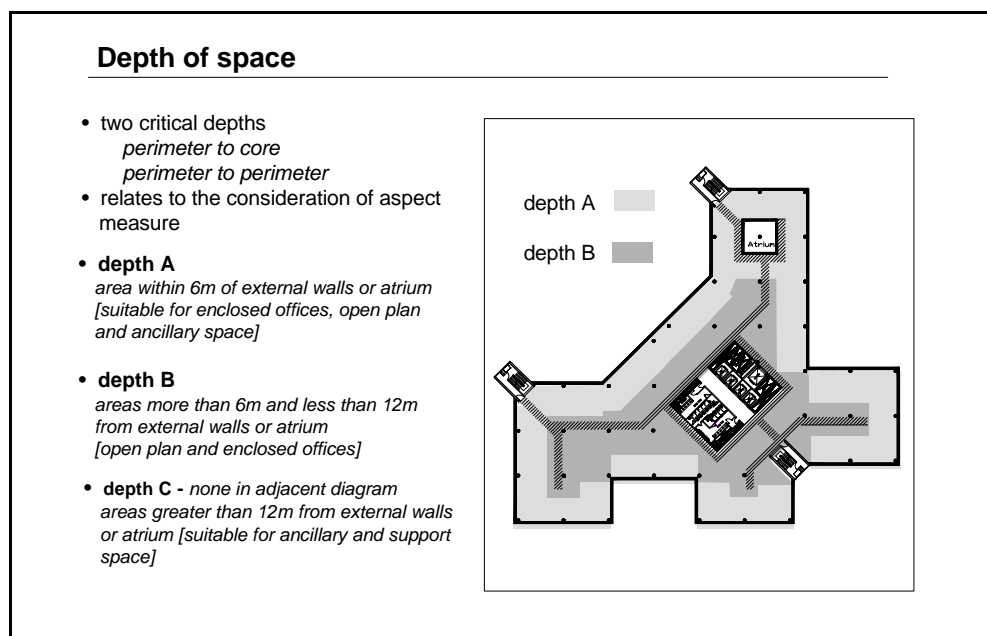
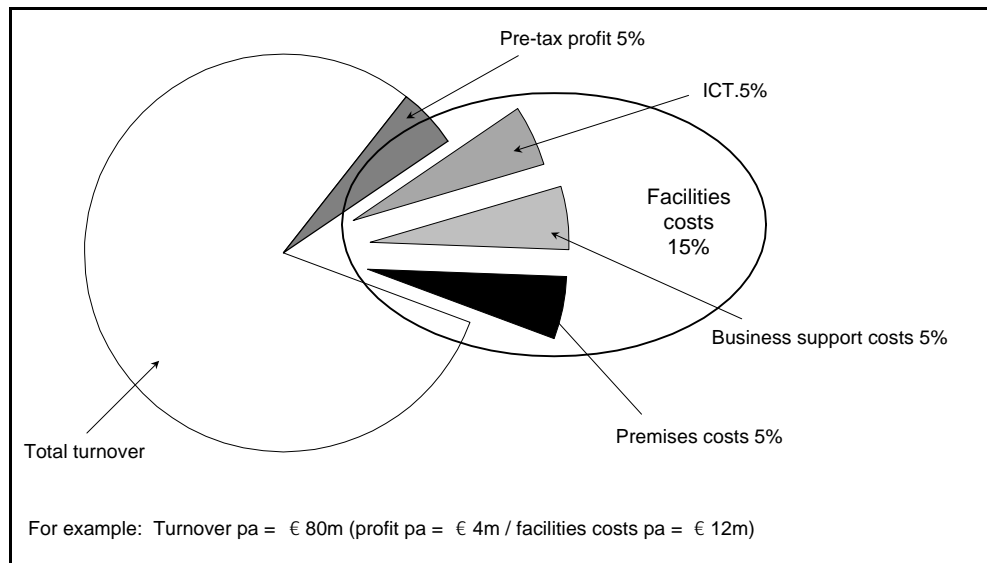


Fig. 4.1.E (p):
Step by step
approach to
standard method of
building
measurement.
Depth of space



Managing the investment in the core of ICT systems is becoming more and more complex and more of a specialisation. The overriding need is for close co-operation between ICT and facilities departments to deliver a safe, flexible and productive working environment. Fig. 7.5.C indicates a typical relationship between the costs of ICT and the other facilities in the context of annual turnover.

Fig. 7.5.C
Turnover, profit and facilities costs



7.5.2 OFFICE NETWORKS

Over the last decade there has been a dramatic shift from proprietary computer and word-processing systems from suppliers such as IBM, BULL and WANG to a more or less standards-based architecture. That architecture comprises:

- personal computers with network connections
- shared networked printers
- structured voice and data cabling
- Radio LANs and DECT phones
- network hubs and switches
- backbone cabling
- central ICT equipment rooms.

Fig. 7.5.D shows a typical office computer network configuration.

Fig. 7.5.D
Office computer network

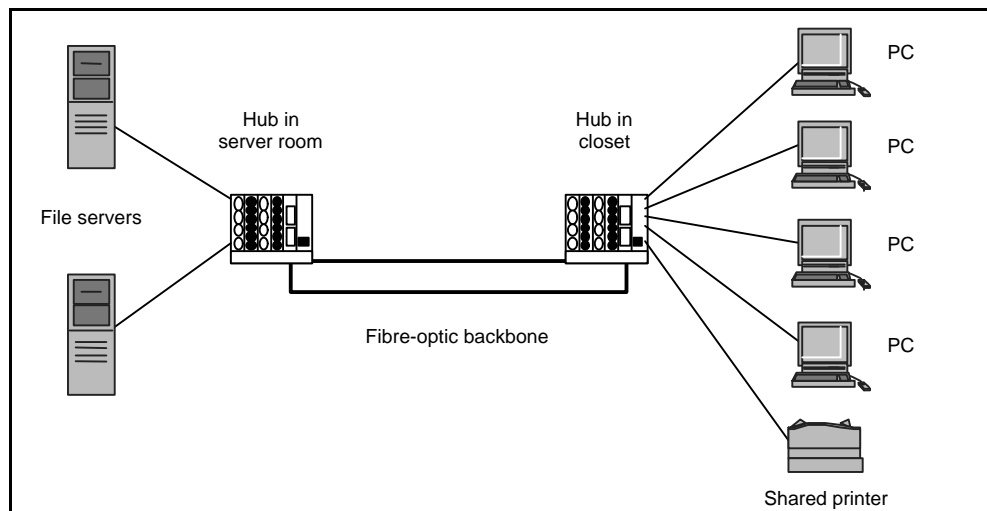


Fig. 8.2.A
Key health and
safety legislation for
each EU member
state

Member state	Key health and safety legislation
Austria	Act on the Protection of Employees 1994
Belgium	Codex on Well-Being at Work
Denmark	Working Environment Act 1975
Finland	Act on Protection at Work, 1958 and 1997 Occupational Health Care Act 1978
France	Labour Code, 1993
Germany	Occupational Safety Act 1975 and 1990
Greece	Health and Safety of Workers 1985 Measures for the Improvement of Health and Safety at Work 1996
Ireland	Safety, Health and Welfare at Work Act 1989.
Italy	Legislative Decree 626/94 - "Transposition of Directives 89/391/EEC, 89/654/EEC, 89/655/ EEC, 89/656/ EEC, 90/269/ EEC, 90/270/EEC, 90/394/EEC, 90/679/EEC on the improvement of health and safety of workers at work. Ordinance 53/71 of 3 February 1971 - Approves the general rules concerning safety and hygiene of work in industrial establishments - last amended by Ordinance 702/80 of 22 September 1980
Luxembourg	Law Concerning Safety and Health of Employees at Work 1994
Portugal	Decree-Law 441/91 of 14 November 1991 - Approves the framework rules on safety, hygiene and health at work - last amended: Decree-Law 133/99 of 21 April 1999
Spain	Working Risk Prevention Law 1995.
Sweden	Work Environment Act 1977 and 1997
The Netherlands	Working Conditions Act 1999
United Kingdom	Health and Safety at Work Act 1974

Source: LawGibb (2000) Environment Policy Center, Brussels

8.2.2 RISKS TO HEALTH AND SAFETY

There are a number of groups of persons who are potentially at risk of health and safety hazards in the facilities environment. These include employees, contractors, visitors and members of the public.

Under the European Framework Directive employers have a general duty of care to ensure the health and safety of all employees while at work. This general duty of care is extended in each member state's national legislation and also to others who work at or visit the premises such as temporary workers, contractors, and visitors to the building such as salespersons, spouses, relatives and/or members of the public.

Fig. 9.1.R
Partial relocation appraisal as Fig. 9.1.Q but as a cost/benefit analysis introducing personnel costs and improvements in productivity

Development relocation		Year 1 € ,000's	Year 2 € ,000's	Year 3 € ,000's	Year 4 € ,000's	Year 5 € ,000's	Total € ,000's
Premises costs - city centre	Rent	(2,880)	(2,880)	(2,880)	(2,880)	(2,880)	(14,400)
	Local taxes	(1,200)	(1,260)	(360)	(380)	(395)	(3,595)
	Operating costs	(770)	(805)	(210)	(220)	(230)	(2,235)
	Fitting-out / 'churn'	(600)	(120)	(125)	(145)	(150)	(1,140)
	Rental income	0	0	2,160	2,160	2,160	6,480
Premises costs - provincial location	Development loan	8,320	0	0	0	0	8,320
	Loan repayment	(1,350)	(1,350)	(1,350)	(1,350)	(1,350)	(6,750)
	Land purchase	(1,600)	0	0	0	0	(1,600)
	Construction	(1,920)	(4,800)	0	0	0	(6,720)
	Fitting-out / 'churn'	0	(1,620)	0	0	0	(1,620)
	Local taxes	0	0	(395)	(415)	(435)	(1,245)
	Operating costs	0	0	(470)	(490)	(515)	(1,475)
Business costs - both facilities	Direct moving cost	0	0	(80)	0	0	(80)
	Indirect moving cost	0	0	(800)	0	0	(800)
	Productivity benefit - city centre	0	0	50	100	105	255
	Productivity benefit - provincial location	0	0	100	205	215	515
	Dual location costs	0	0	(240)	(250)	(265)	(755)
	Salary saving	0	0	720	750	790	2260
Overall total € ,000's		(2,000)	(12,840)	(3,880)	(2,915)	(2,915)	(24,550)
Present value factor at 15% pa		1.0000	0.8696	0.7561	0.6575	0.5718	
NPV		(2,000)	(11,165)	(2,930)	(1,915)	(1,665)	(19,675)

Fig. 9.1.S
Partial relocation study - summary of alternative appraisal calculations

Premises costs only		NPV cost € ,000's
Fig. 9.1.N	Option 1 – status quo (city centre) option	(22,705)
Fig. 9.1.N	Option 2 - partial relocation (rental option)	(15,250)
Fig. 9.1.P	Partial relocation (development option)	(23,650)
Fig. 9.1.Q	Partial relocation (development option – loan repayment)	(20,540)
Premises plus business costs		
Fig. 9.1.R	Partial relocation (development option – including cost / benefit analysis)	(19,675)

10.3.2 LAND-USE ECONOMICS

Enhancing the land value

Even the most casual observers of the activities of property developers will be aware that there are three principal ways in which a developer, land-owner or land-speculator can make an increased profit out of development land:

- to obtain valuable building consent on land without consent and bought cheaply
- to get an improved building consent on land bought on the basis of an earlier approval
- 'marriage value' ie assembling two or more sites cheaply then merging them into one site for development purposes with a total value greater than the sum of the two parts taken in isolation
- acquiring key sites which unlock development value on other land, eg to provide access to back-land owned by others.

Depreciation of land value

Fig. 10.3.J
Negative residual land value resulting from changes in the value assumptions at Fig 10.3.B

Capital value of completed development						
Gross internal area sq m GIA	Less non-rentable area: 15% sq m GIA	Rentable floor area sq m NIA	Rent / pa per sq m NIA €	Total rent pa €	Capitalisation factor at 10% initial yield	Capital value €
A	B	A-B	C	(A-B)xC=D	E	DxE
1,000	(200)	800	200	160,000	10YP	1,600,000
Development cost				€		
Profit		16.67% x € 1,600,000		(266,720)		
Building and site development costs		1,000 sq m GIA at € 1,300 per sq m gross internal area		(1,300,000)		
		Finance charges (monthly cash flow basics) 0.5 x 11% pa for 1 year construction contract period		(71,500)		
Professional fees		10% of building cost		(130,000)		
		Finance charges (monthly cash flow basis) 0.75 x 11% pa for 1 year construction contract period		(10,725)		
Other costs		Initial leasing commissions (10% of gross rent for first year)		(16,000)		
Sub-total				(1,764,945)		(1,764,945)
Gross residual land value						(194,945)
Land finance and acquisition costs		Eliminate finance at 11% pa over 1.5 years development period ÷ 1.165 (note 5)				N/A
		Eliminate acquisition costs 3.5% of land costs ÷ 1.035 (note 6)				N/A
Net residual land value						Negative

In summary, data is required under the following categories:

- the life of buildings
- the life of systems
- the life of components
- the cost of maintenance
- the cost of repair
- the cost of replacement
- the causes of deterioration and failure
- the consequential effects of deterioration and failure.

Until better data is available facilities managers have to use the best evidence they have; better an intelligent prediction than no thought at all - which seems yet to be the convention in many new-build and refurbishment projects where the risk of life-cycle replacement resides with the building user.

Intelligent life-cycle prediction

Fig. 10.6.L
Risk appraisal - life-cycle replacement prediction proforma (1)

Project: Example Scenario - 1	Element: Component:	External walls Curtain walling		Life expectancy projection		
				Maximum life-years	30	30
				Minimum life-years	(10)	-
Risk exposure centre	Risk exposure factor	Contribution to loss of life-years		Maximum loss	20*	
		Worst case	Probability %	Probable loss		
1. Component	Quality Manufacturer Obsolescence Complexity of operation	(8.0)	80	(6.4)		
2. Specification / Design detailing	Adjacent materials Adjacent detailing	(3.0)	90	(2.7)		
3. Installation	Complexity Site management Familiarity Competence Protection Accessibility Site conditions	(5.0)	70	(3.5)		
4. Local factors – in use	User activities Environment Location of Building Redundancy	(4.0)	35	(1.4)		
5. Others	Specify	-	-	-		
Maximum loss - years		(20*)	-	-		
* The 'worst case' total must always be the same as the 'maximum loss' prediction		Probable loss - years		(14.0)		
		Total predicted loss - years				(14)
Note: Tinted areas to be written by hand		Total predicted life-cycle - years				16

Source: Bernard Williams Associates

11.4 VALUE ADDED TAX

Introduction

Value Added Tax (VAT) is a centrally devised ad valorem tax on turnover affecting all EU member states. The broad structure which is common to all countries is derived from the VAT directives, particularly the EC First and Second VAT Directives. However the detail of its implementation differs from state to state - for instance, the rates of tax differ. For a fuller accord with the principles of the single market, the EC Sixth Directive of 1977 was adopted for greater harmonisation and others have followed.

Generally the facilities managers should not need to be experts in the detail of VAT. Nevertheless, they should be aware of the ways in which VAT impacts on the operation of the facilities management function. This chapter gives a broad overview of VAT in the EU. It may be noted however, that some EU member states have both excluded areas and areas which are subject to special VAT rules including freeports and bonded warehouses (see Fig. 11.4.A).

Fig. 11.4.A
Parts of EU
member states with
special VAT status

EU member state	Areas included	Areas excluded	Areas of special VAT rules
Austria			
Belgium			Bonded warehouses
Denmark		Faroe Islands Greenland	Copenhagen Freeport
Finland			
France	Corsica Monaco Guadeloupe Martinique Réunion		Bonded warehouses
Germany			Freeports
Greece		Mount Athos	
Ireland			Ringaskiddy Freeport Shannon customs free airport
Italy			Campione d'Italia Freeport Livigno Freeport
Luxembourg			Bonded warehouses
Portugal	Angores Madeira		Bonded warehouses Island of Madeira Island of Santa Maria (in Angores)
Spain	Balearic Islands	Canary Islands	Basque Country Navarra
Sweden			Bonded warehouses Stockholm Freeport Gothenburg Freeport
The Netherlands		Netherlands Antilles	Bonded warehouses
United Kingdom		Channel Islands	Liverpool Freeport Southampton Airport – Freeport Belfast International Airport – Freeport Birmingham International Airport – Freeport