

MSc Property & Facilities Management



Space Planning and Management



What Is Space Planning?



- Space plans
- Block plans
- Desk layouts
- Departmental layouts
- Facility plans
- Ground layouts
- Stacking plans
- Furniture layouts
- People layouts
- Detailed Layouts

What Is Space Planning?

- Organisational briefing
- Detailed briefing
- Corporate briefing



- Facility briefing
- Concept planning

The key is that space planning only makes sense when linked to corporate objectives and to the business plan – leading to the following definition of space planning...

Space Planning, a definition...

Meeting corporate objectives, within any given or proposed stock of working space, through achieving appropriate and functional spatial relationships of business functions, and through satisfying the needs of the people who perform these functions, in such a way that the resulting physical solutions are cost-effective, can be managed efficiently and, above all, are capable of accommodating change.



Space Planning and Management



Why office design matters...

...business performance?

The Frank Lloyd Wright Foundation, Taliesin West, Scottsdale, AZ

Importance of Space Planning

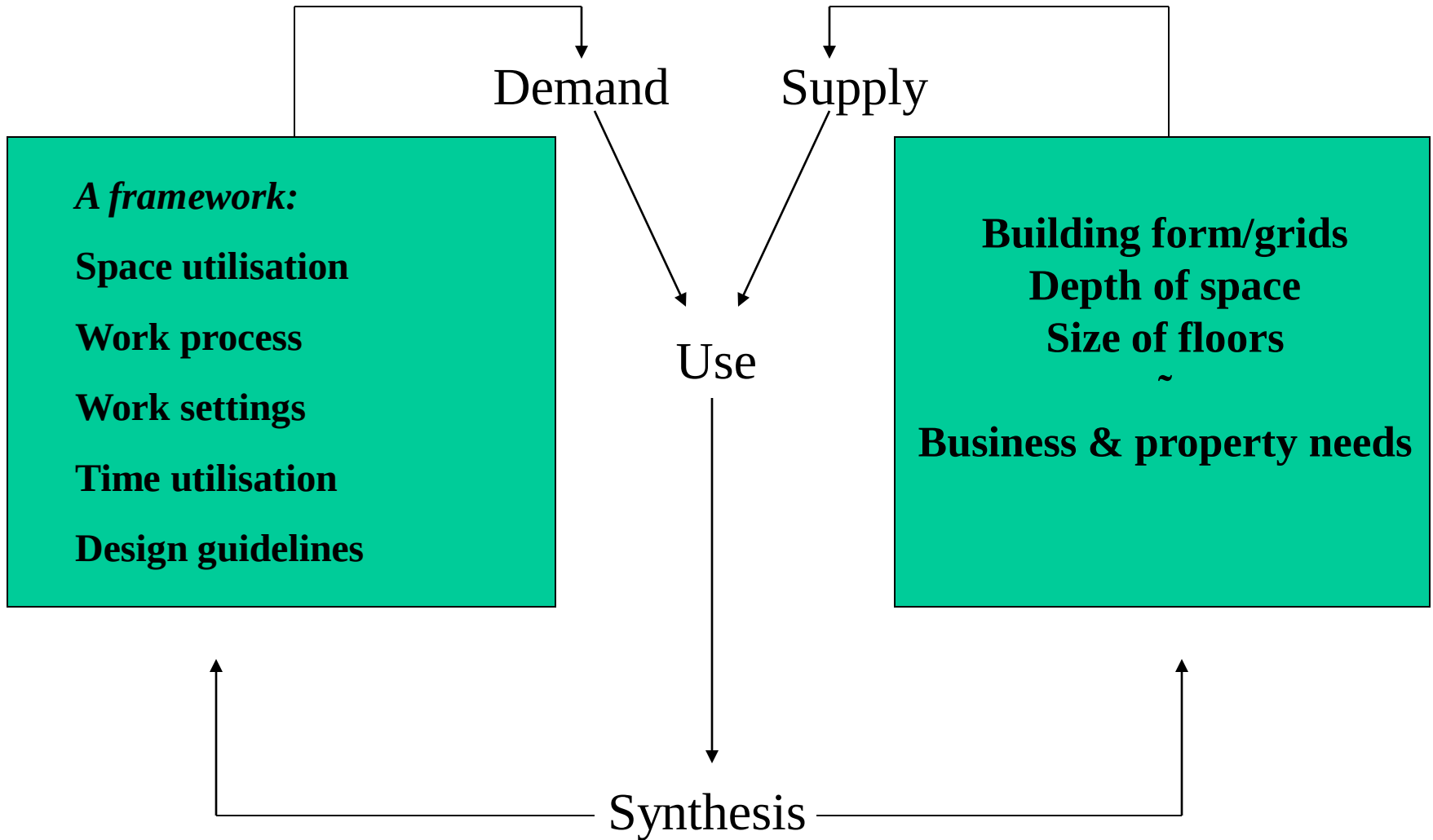


- We spend a lot of time in it
- Creates boundaries
- Can help organisations achieve their objectives/mission

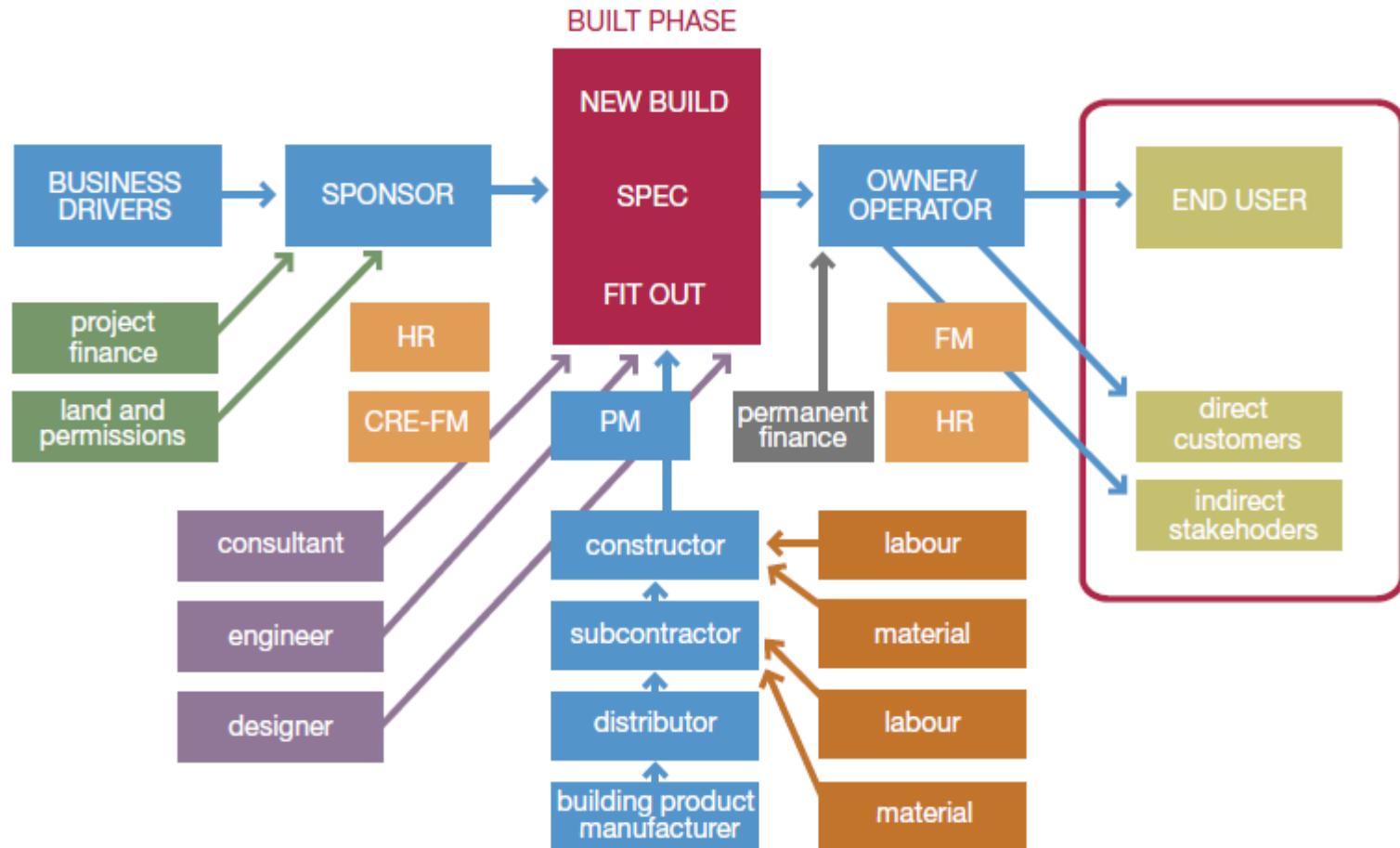
- Space costs money
- Impacts on productivity
- Emotional and social impact



The Scope of Space Planning



A complex supply driven system



Source: The impact of office design on business performance 2006

Stages of Space Planning

- Space auditing
- Organisational need
- Occupants' needs!



Google images

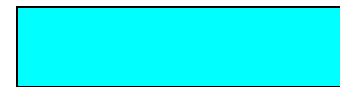
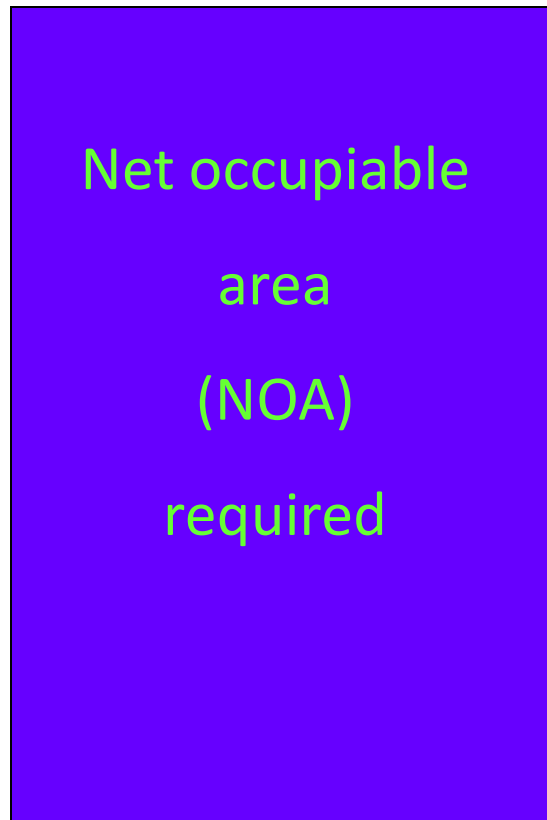
Space use guidelines

Space budget



Space Budget

Organisation demand



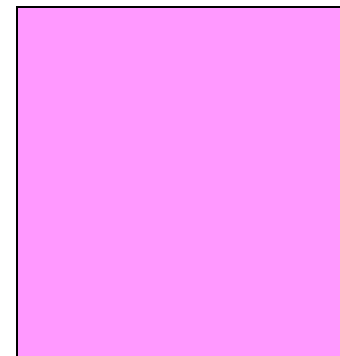
Fit factor



Support



Ancillary



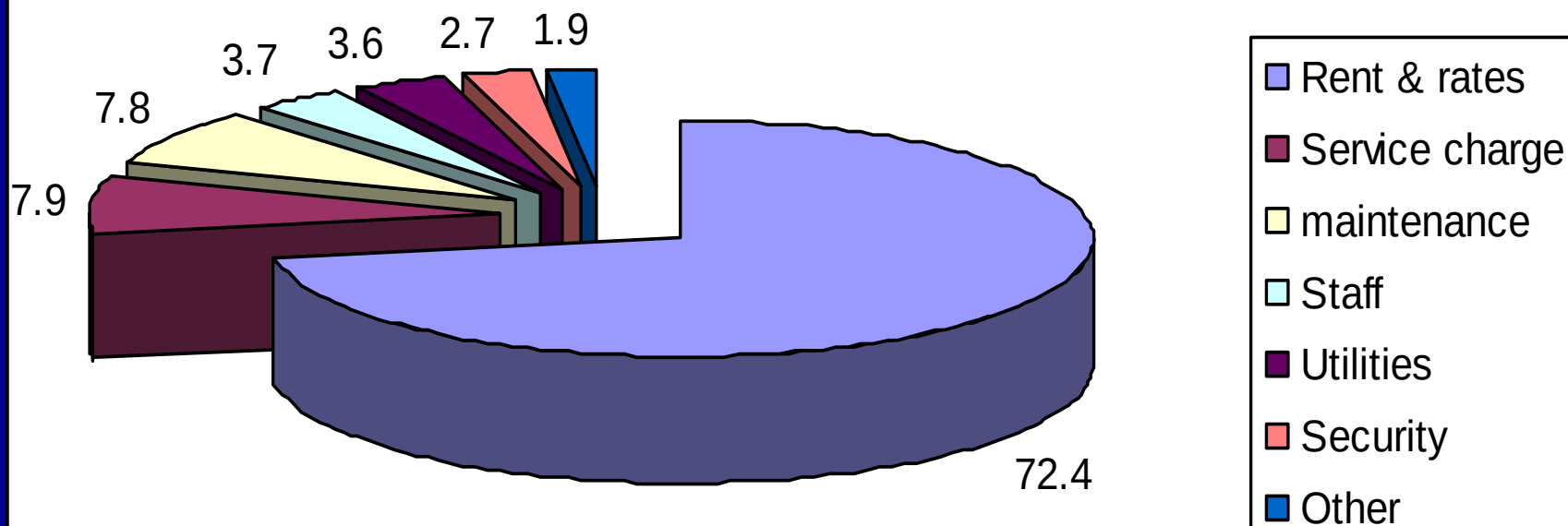
Workspace

Space Planning



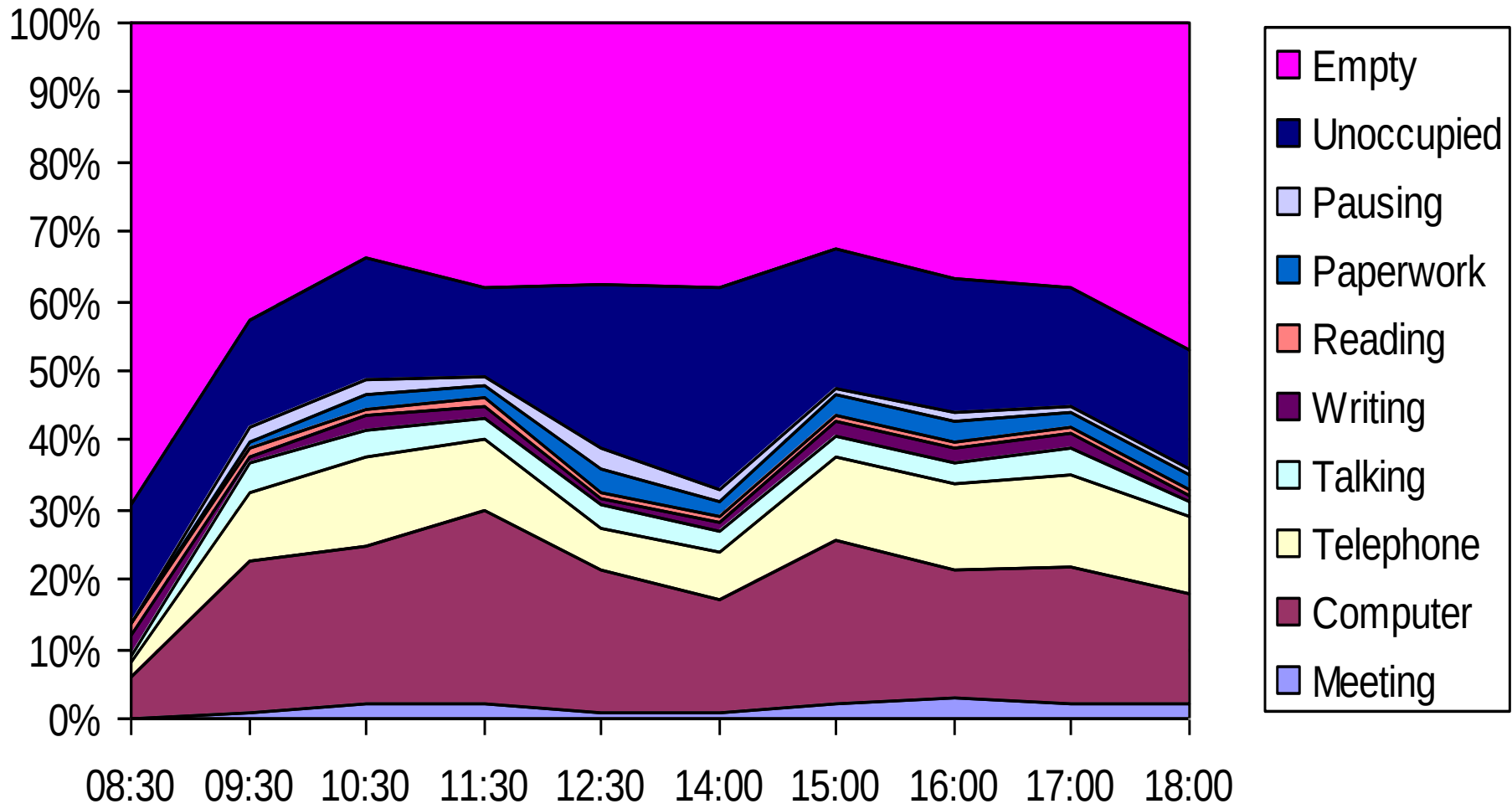
- Accommodating growth or contraction
- Encouraging interaction and team working
- Enhance the lives of the users
- Rationalizing furniture and equipment
- Reducing operating costs
- Others!

Cost of Space (%)



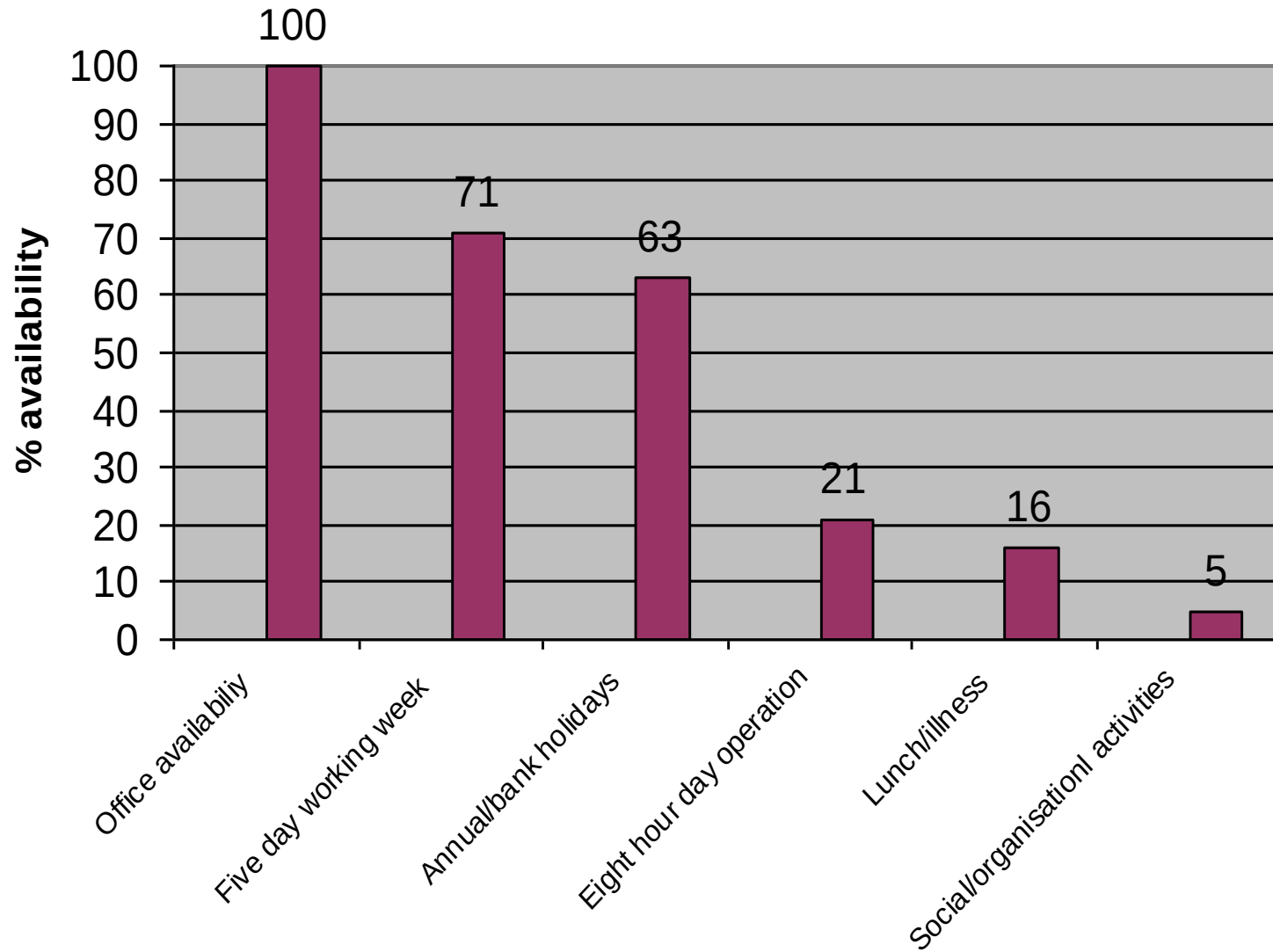
Source: Tony Thompson, DEGW

The Diversity and Dynamism of Modern Office Work



Adapted from DEGW data

Office Utilisation

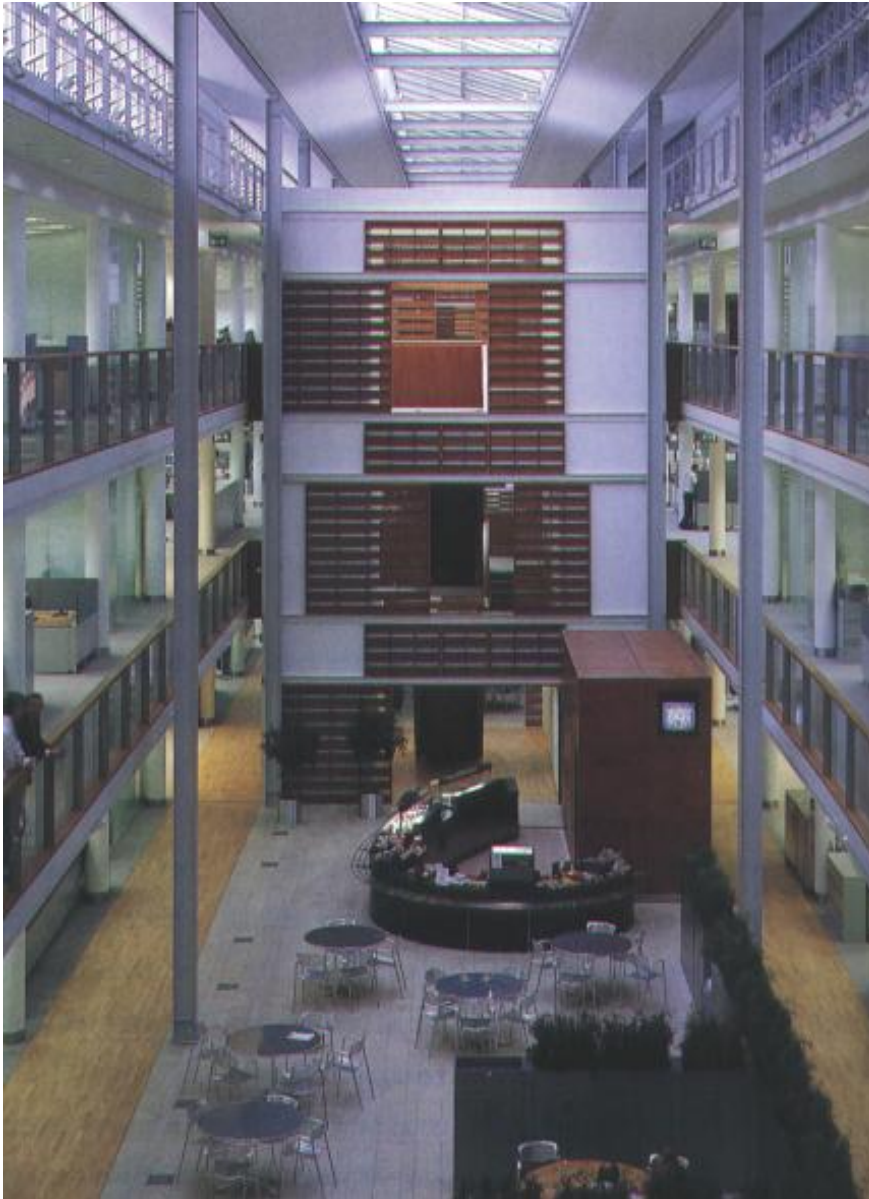


Source: the responsible workplace, Duffy et al.

Office time is made up of...

- Social activity
- Operating the building and organisation
- Real relevant work





Building Appraisal

Building appraisal is the measurement of buildings in terms of space and performance.

It helps evaluate how successfully a building will accommodate an organisational need.

The key is to establish the building NOA available for the use of the organisation.

This NOA is directly comparable to the space budget NOA already established.

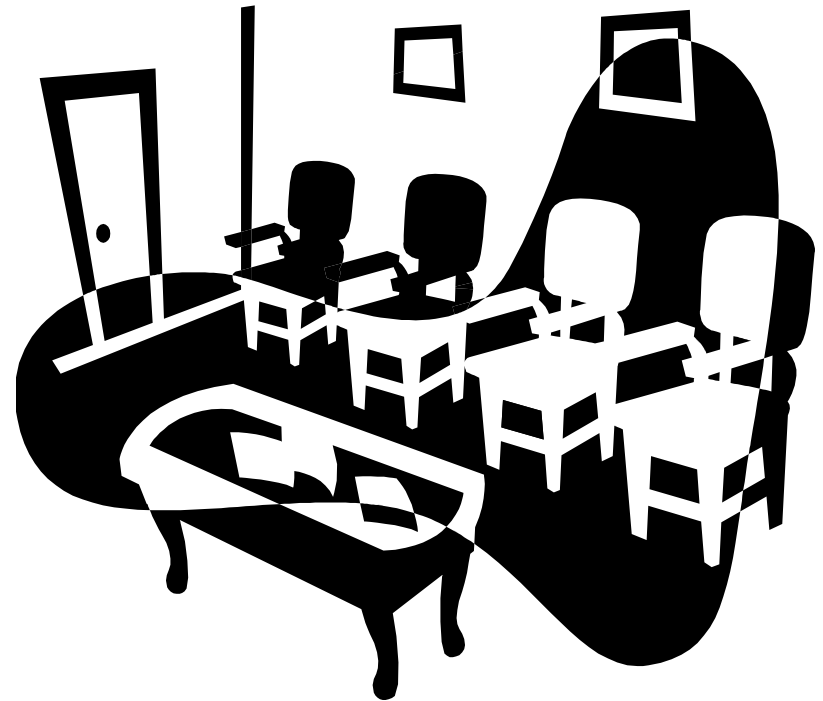
Measurement of Space



- Supply side analysis
- Building efficiencies
- Building spatial performance

Floor area measurement- some challenges

- The components of area which carry a rental charge
- The ways of measuring floor area
- Similar terminology relating to different actual areas
- The actual size of the building being different from the quoted area or negotiated area



Net Rentable Area

	Net Rentable Area Based on			
	Gross External	Gross Average	Gross Internal	Net Internal
France			✓	
Japan	✓			
UK				✓
USA		✓		

Realism Behind NOA



NOA is therefore the most realistic area measurement to use, particularly for:

- Comparisons between buildings
- Benchmarks of space utilisation
- Real costs of occupancy

Workshop

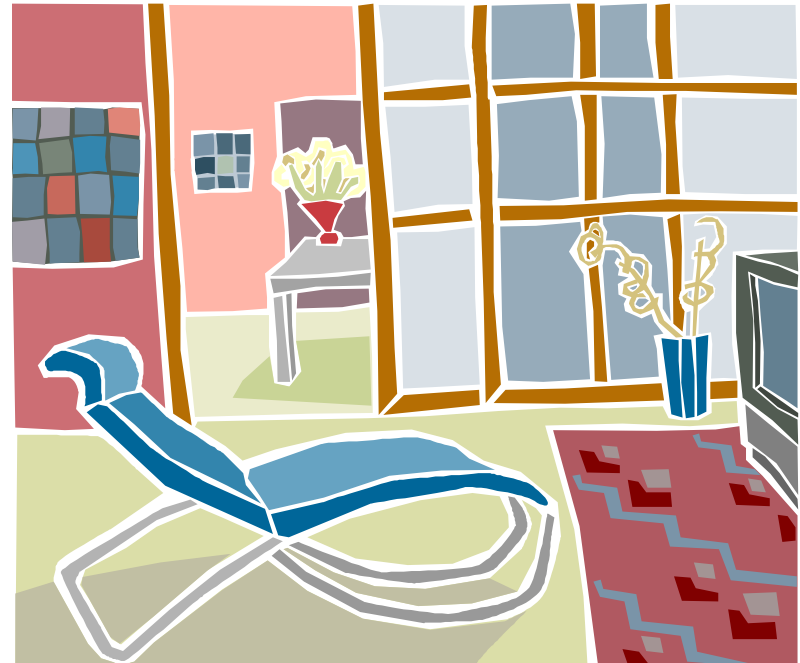
You are responsible for the development of your organisation's forward planning strategy. Key to this development is how future change can affect space management.

Put forward key 'factors of change' that are likely to occur during the next five years.

Explain the possible implications of these changes to the organisation.

Space Management Continued...

Apart from building measurement, building appraisal is also concerned with the quality of space.



Space management today needs to accommodate 'knowledge workers'...



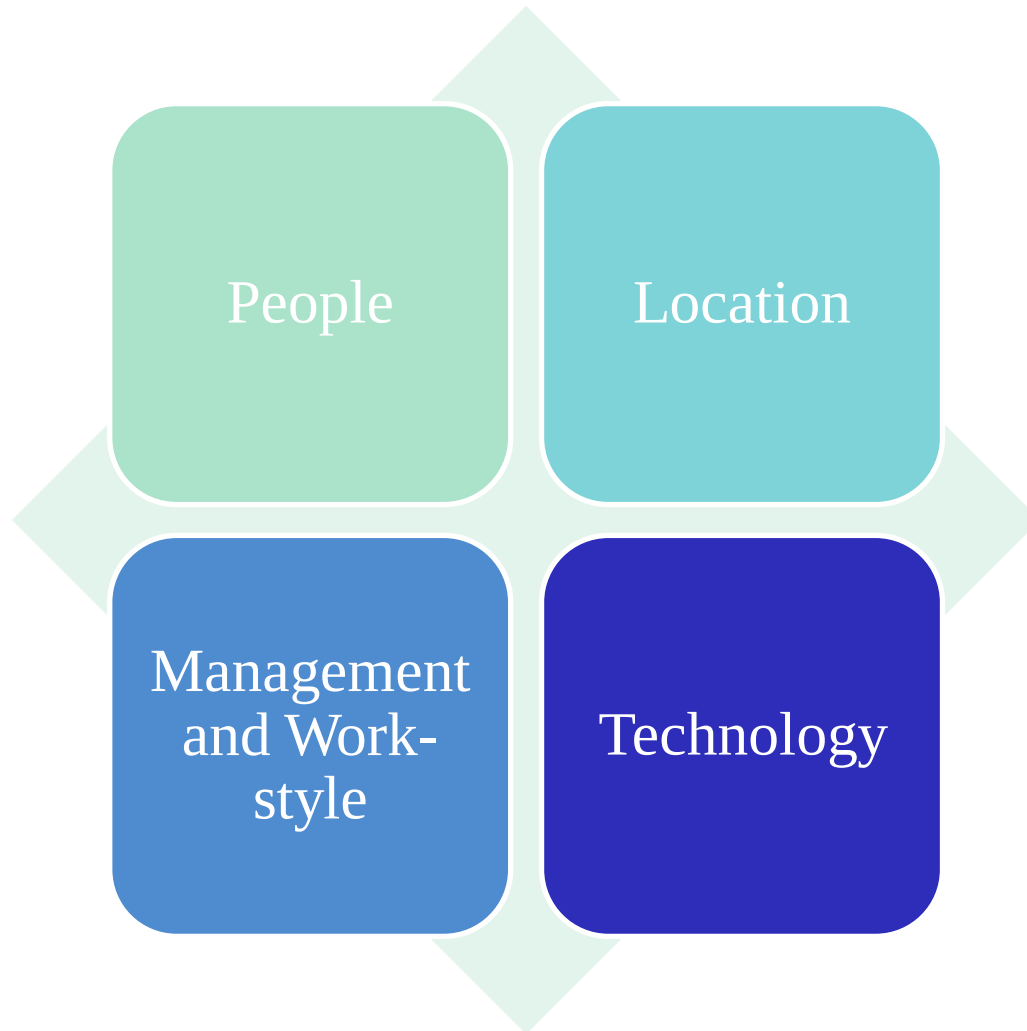
Workplaces & infrastructure must evolve to accommodate change

- Human collaboration via meetings
- Social interaction
- Communication technology



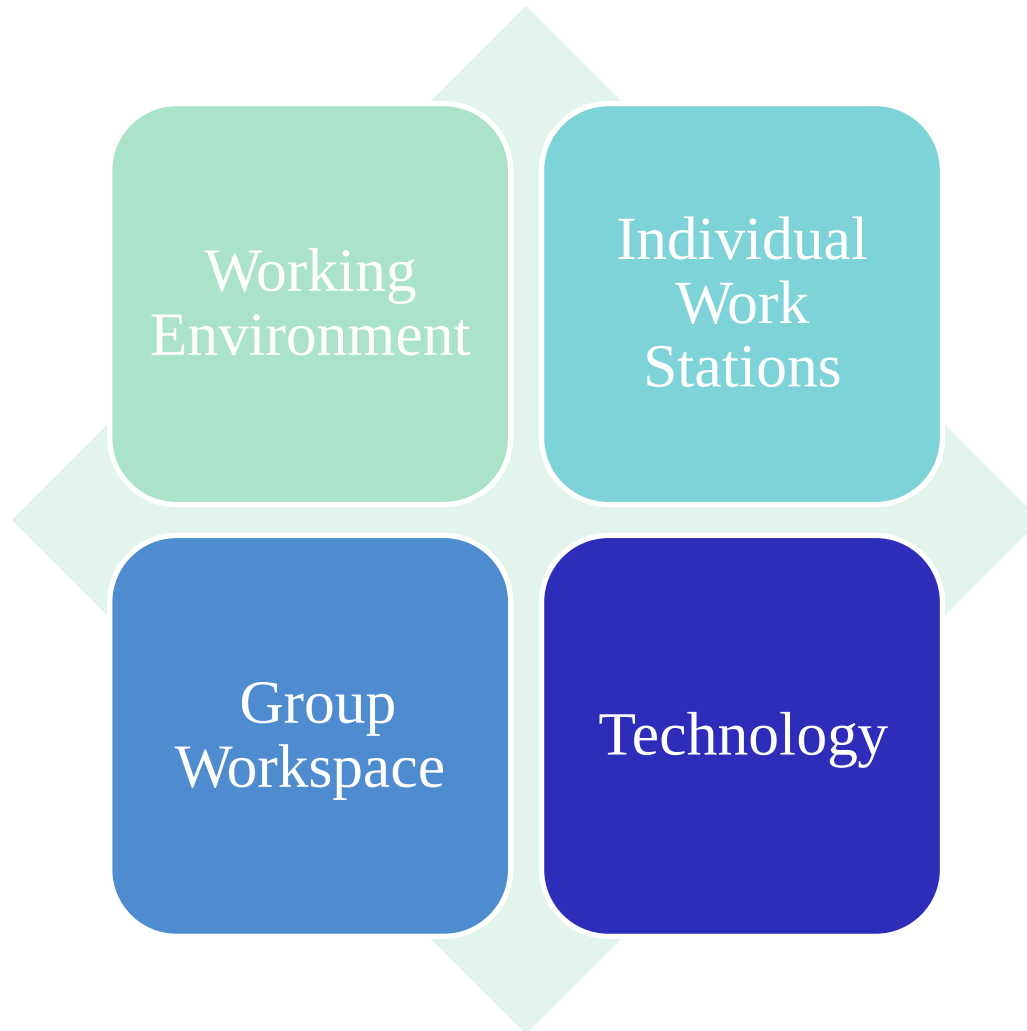
Space management

Our workplace and the way we use our office space is governed by four factors...



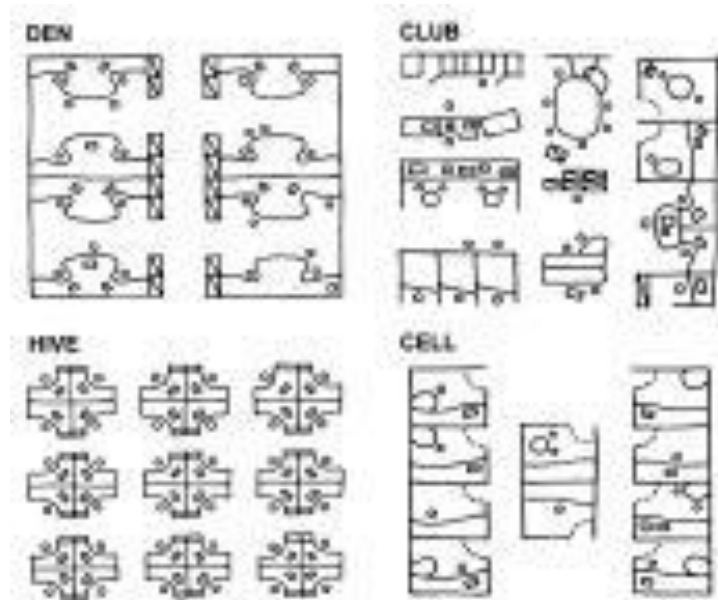
Space management

European
FMs also
revealed key
factors which
determine
the future of
workplaces



Laing, 2004, 'The future of the workplace is now'

Den – Group
processes
(increased
interaction)



Club – Transactional
knowledge
(autonomy &
interaction increases)

Hive –
Individual
processes

Cell – Concentrated
study (autonomy
increases)

Space planning models & concepts

Quality of space

Quality of space is determined by...

space depth

number of occupiable
zones

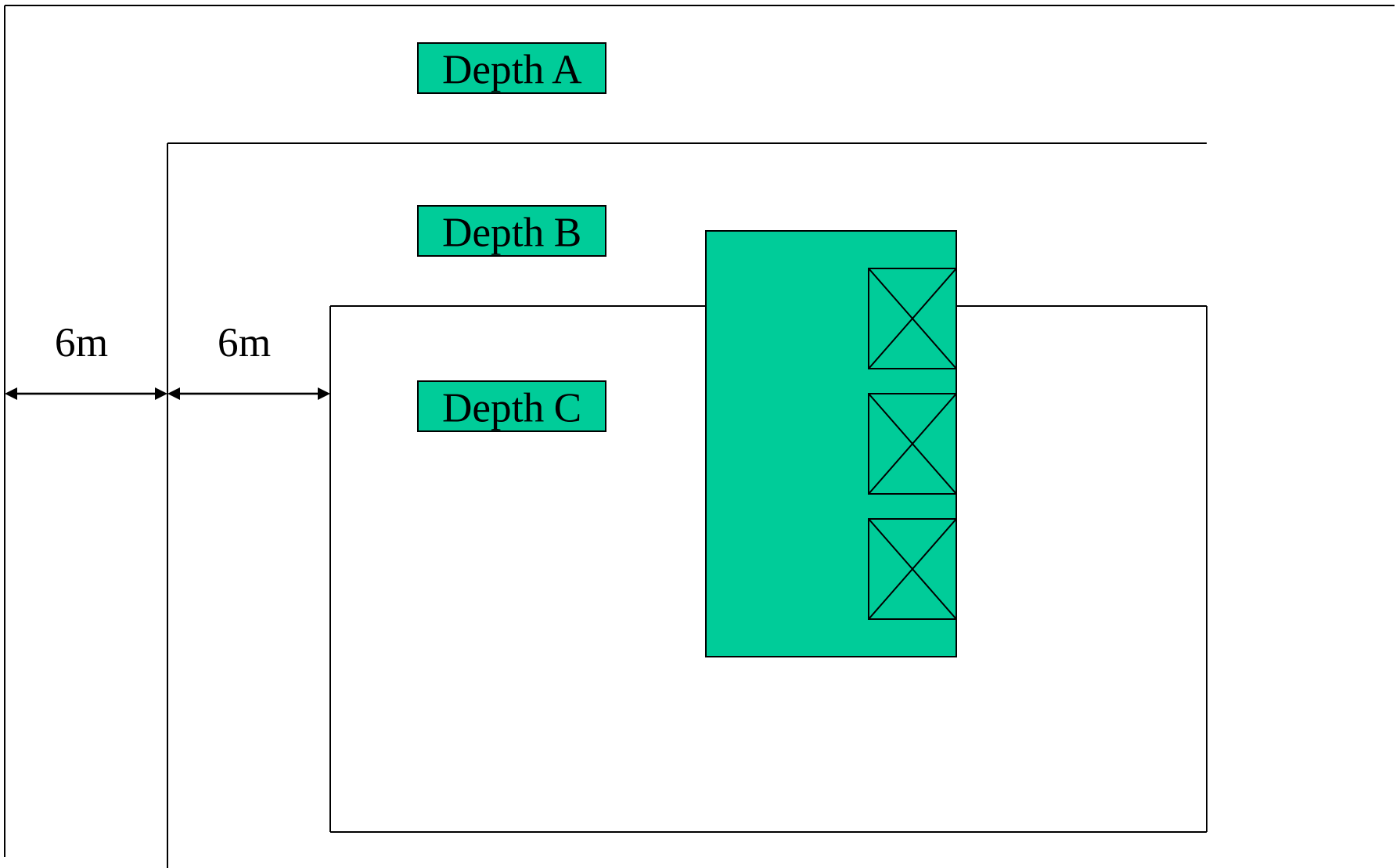
serviceability

access and egress

floor plate size

space divisibility





The depths are defined as:

Depth A	Narrow space	Areas within 6m of external window or atrium wall
Depth B	Medium space	Areas within 6-12m of external window or atrium wall
Depth C	Deep space	Areas more than 12m from external window or atrium wall

Quality of Space

	Categories of space use			
Type of space	Open plan	Enclosed	Ancillary	Support
Narrow space	+	0	-	-
Medium space	+	+	0	0
Deep space	-	-	+	+

+ preferred

0 appropriate

- inappropriate

Space planning

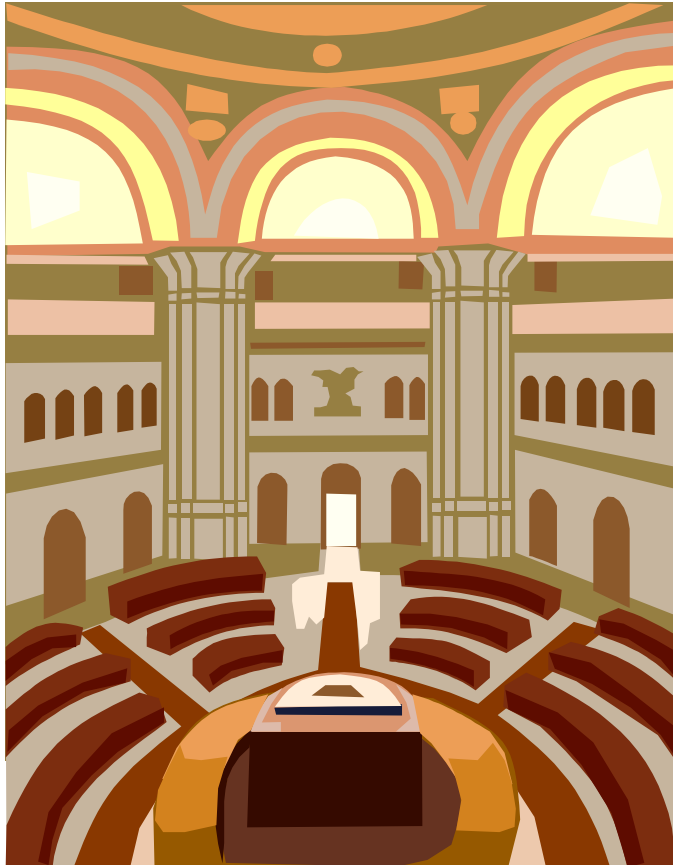
Building efficiencies...

there is no universally
'good' building,

the following points
will help in the
evaluation of building
choice...



Space planning

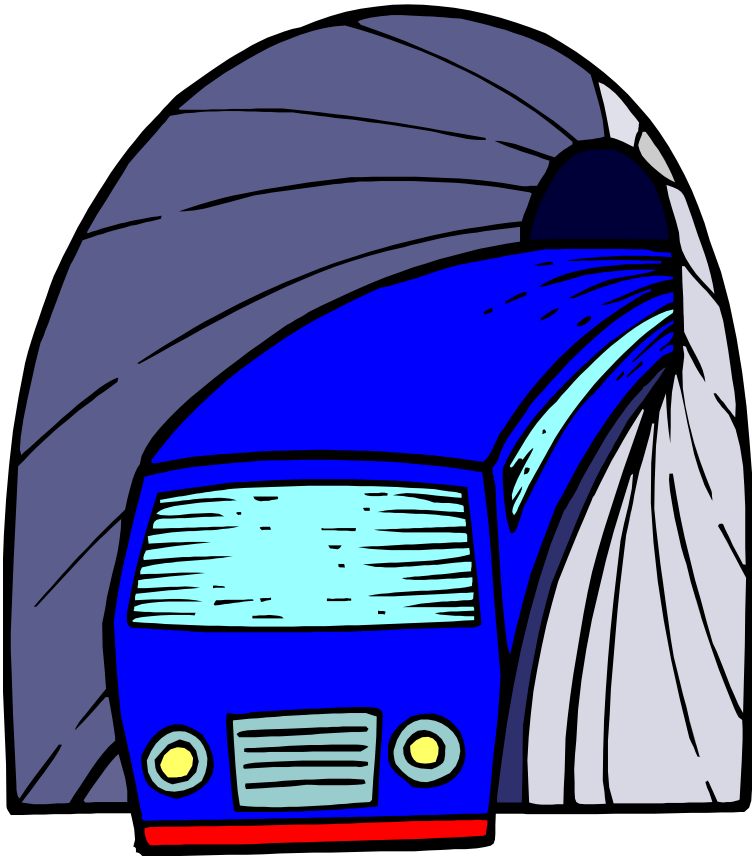


Try to avoid buildings which:

- Have lots of columns in the floor space
- Have small floor plates
- Are irregularly shaped

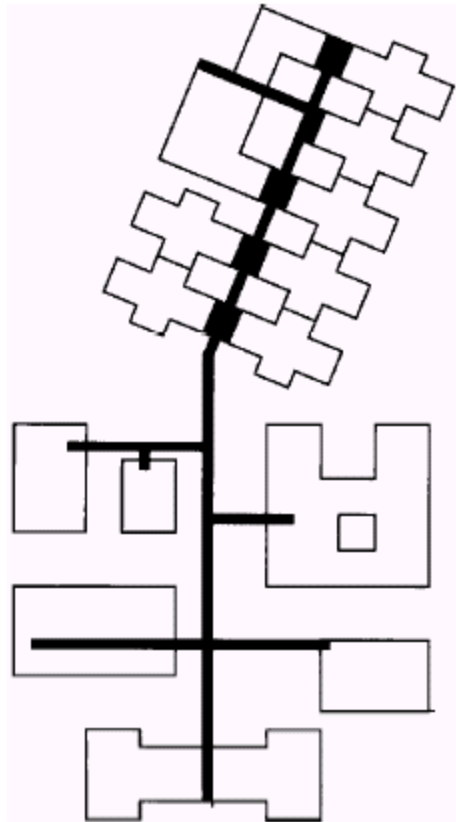
What about outdoor spaces?

Space planning

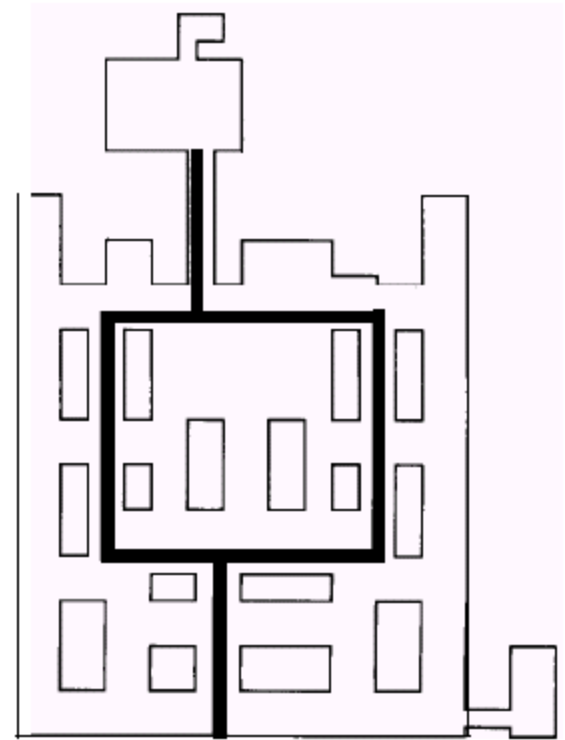


- Are more than walking distance from reasonable public transport
- Are grossly inefficient in terms of their ratio of NOA to NRA

Communication Routes



Linear street with branches



Racetrack form

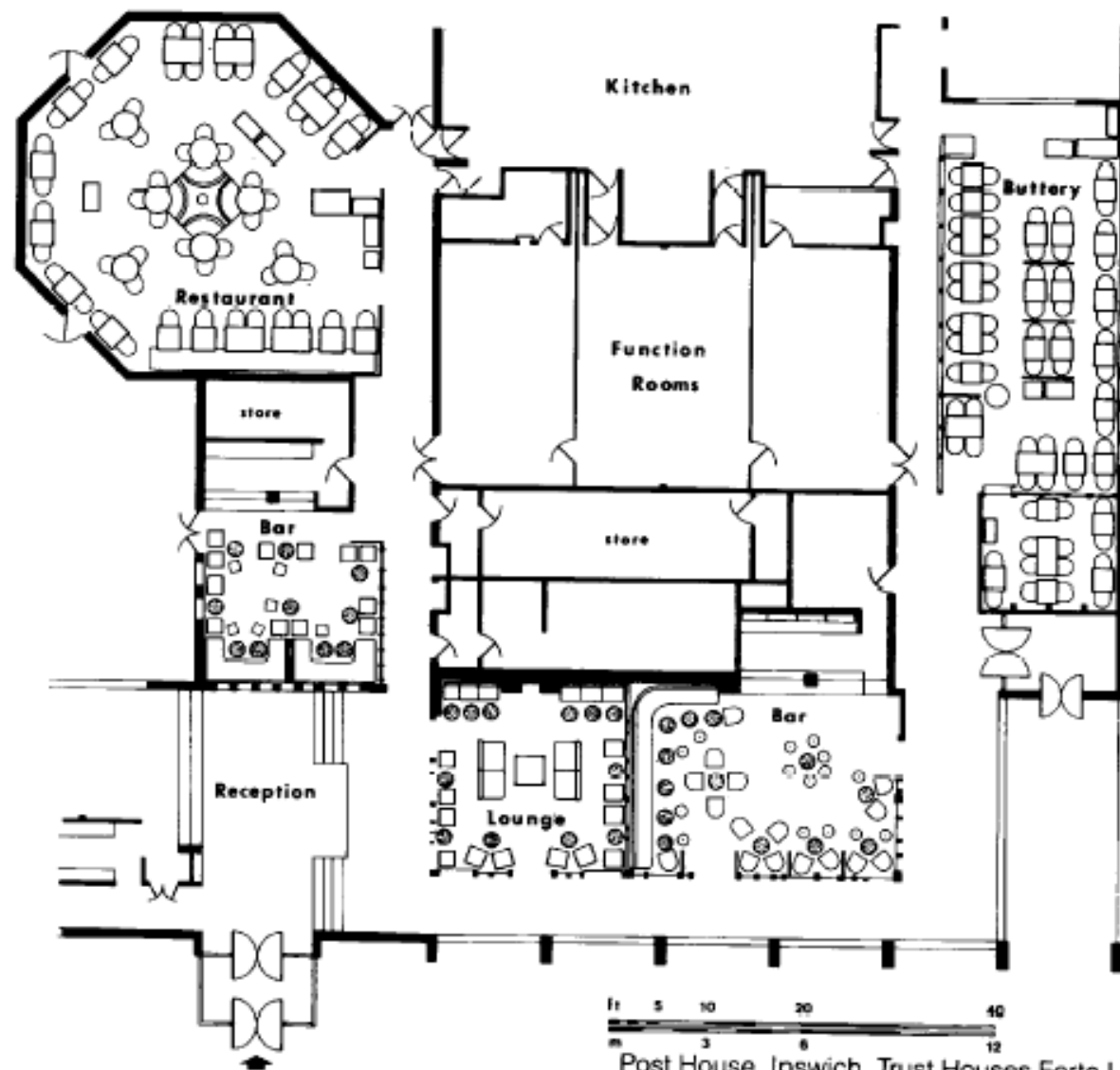
Communication Routes



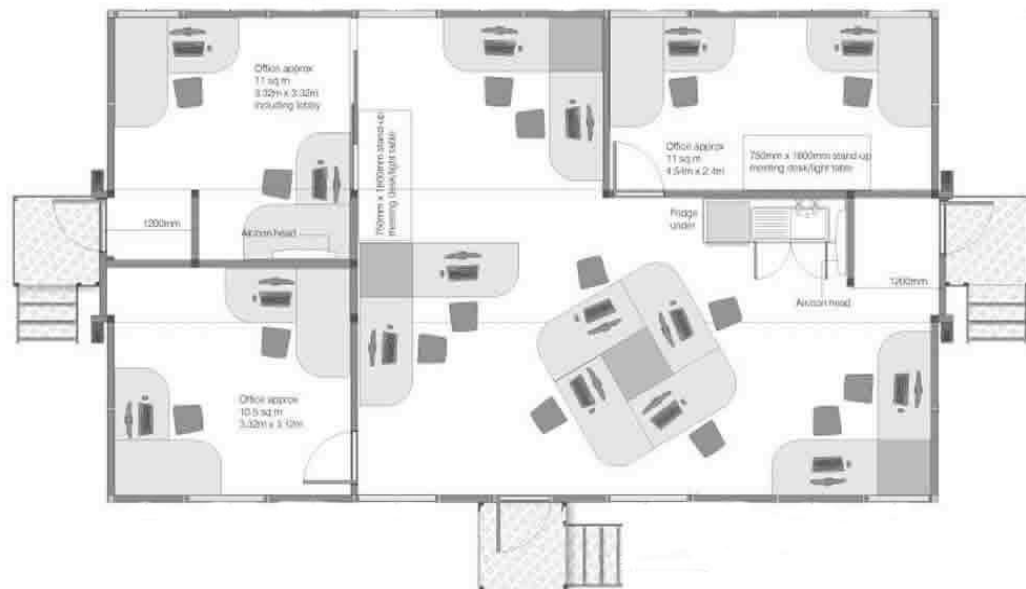
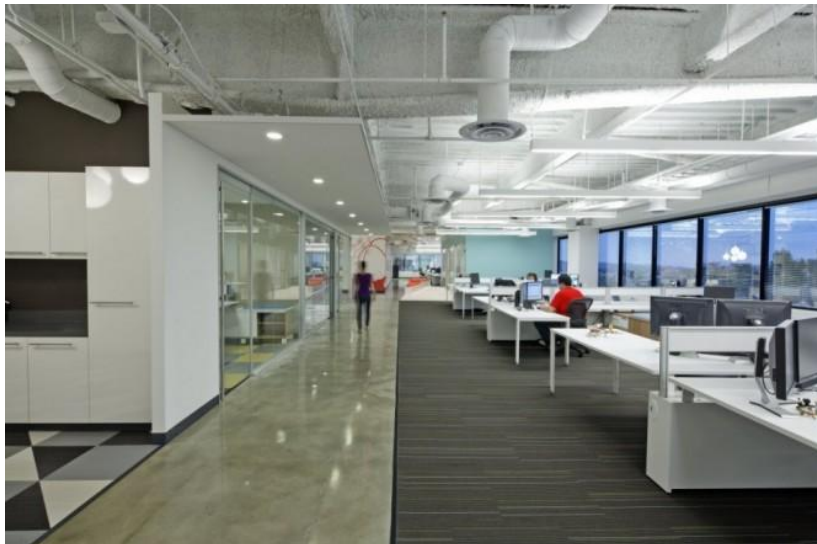
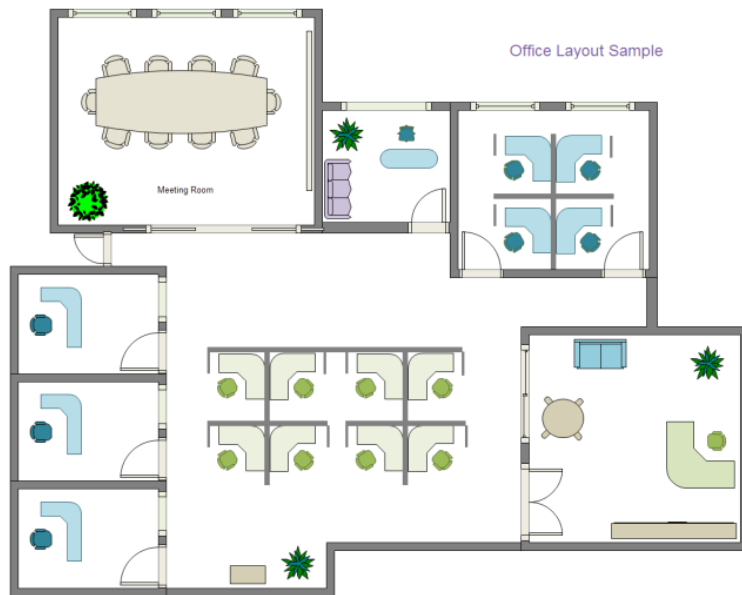
Circulation Routes

- Types of traffic
- Rates of flow
- Space for parking
- Corridors/footpaths as linkages
- Information
- Entrance and waiting areas
- Space for manoeuvrability
- Fire fighting equipment





Post House, Ipswich. Trust Houses Forte Ltd.
Plan showing the layout of the restaurants in the
Ipswich Post House, constructed 1971/2.



Space planning

Optimum efficiency is notoriously difficult to provide guidance for, particularly on a worldwide basis.



Space Planning



- The building configuration
- The building height
- The method of construction and materials used

Space Planning

100 units of area for NRA based on	Expected units of NOA available
Gross external area (GEA)	62
Gross average area (GAA)	65
Gross internal area (GIA)	68
Net internal area (NIA)	85

Matching Demand & Supply

Gross external
Area (GEA)

Gross average
Area (GAA)

Gross internal
Area (GIA)

Net internal
Area (NIA)

Building supply

External walls

Core / common

Primary circulation

Net occupiable
area
(NOA)
required

Space Budget
Organisation
demand

Fit factor

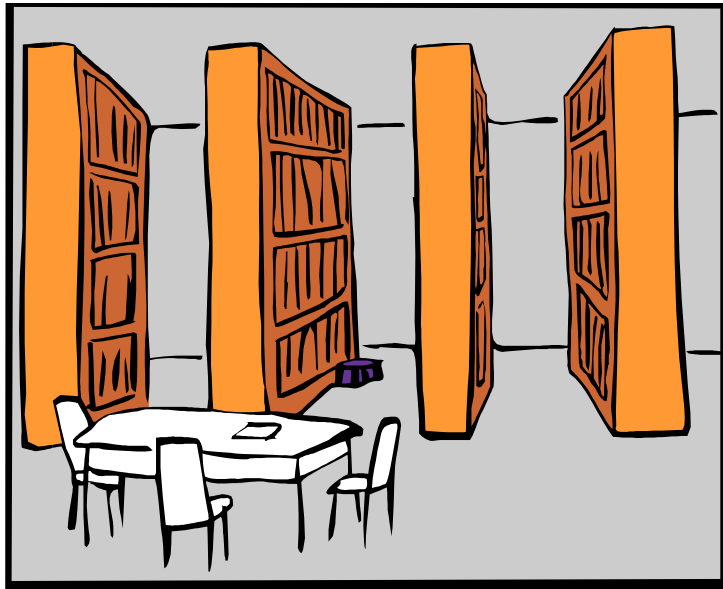
Support

Ancillary

Workspace

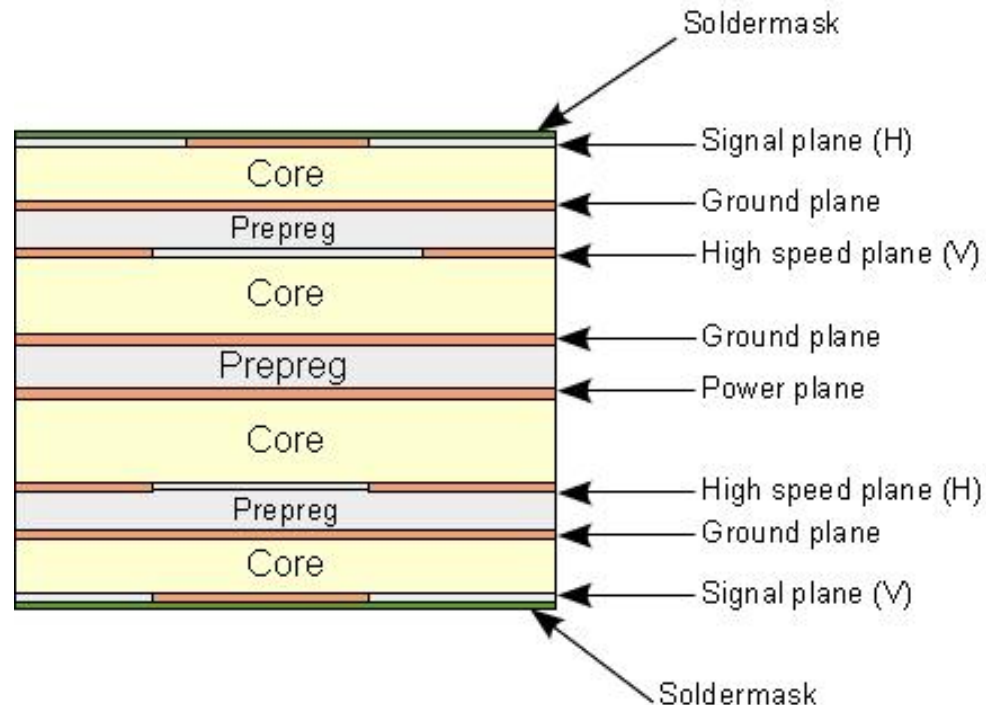


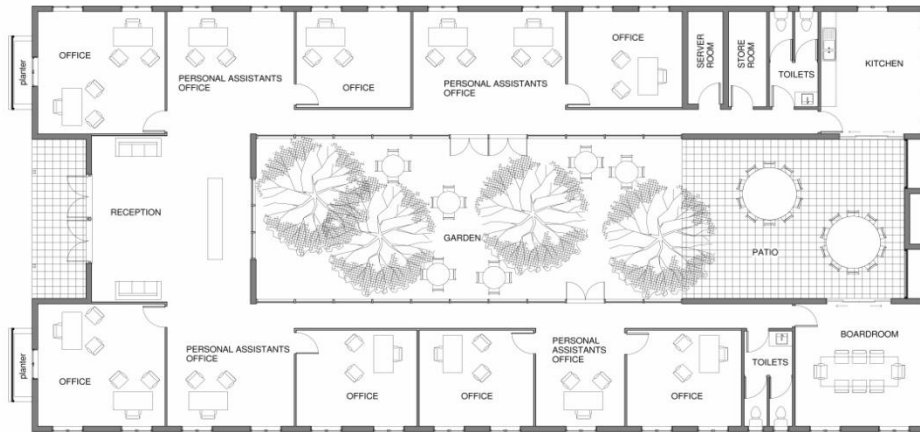
Concluding the Space Planning Process



Once the need has been satisfied and a suitable building/space obtained, the process can continue with the following stages...

- Stacking plans
- Planning concepts



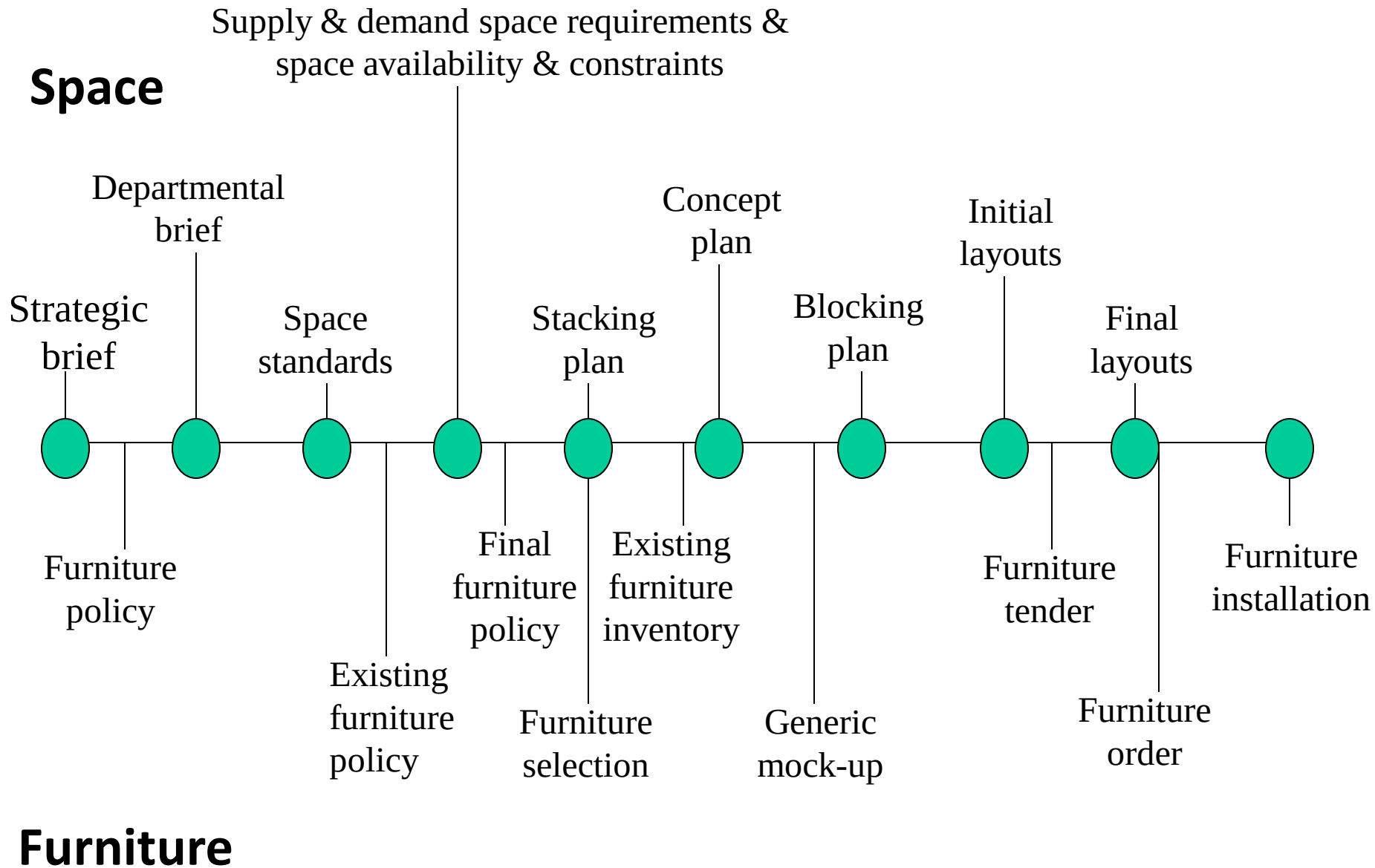


FLOOR PLAN
SCALE 1:100

Concluding the Space Planning Process

- Blocking plans
- Initial layouts
- Final layouts





Space Management...where now...?

Space on demand!



BCO Space on Demand 2016

Space on demand can deliver benefits by finding new uses and users for 'meanwhile spaces' – buildings at the beginning or end of their life. It can deliver benefits of affordable, instant, economical space for solo workers

Space on Demand

Workspace of your own ... wherever you are ... whenever you need it.
Office space for your company ... wherever you are ... by tomorrow.
Meeting space ... wherever you are ... this afternoon.

As much workspace as
you want, where and
when you want it, at an
affordable price.
Workspace as a
service, not a property
transaction.



The Office Club, Bussey Building, Peckham, London
© The Office Club, 2016

Planning workplaces: a way forward?

- Vibrancy
- Connectivity
- A sense of wellbeing
- Context



Workshop / Tutorial



The concept of workplace flexibility has become a significant factor in the planning of today's workplaces. To what extent can a fixed, physical environment support fluid operational needs?

How realistic is it to organise for perpetual change and at the same time, manage a process, which is essentially dynamic, and at odds with the notion of control?