

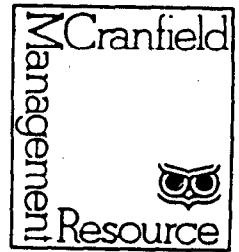


**SWP 51/87 STRUCTURE AND ORGANISATION
FOR IS/IT STRATEGY**

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STRUCTURE AND ORGANISATION FOR IS/IT STRATEGY

INTRODUCTION

There are many ways an *IS/IT* strategy can be structured. The objective is to ensure that users, management and *IS* professionals all understand the key elements of the strategy and each thoroughly appreciate those parts of the strategy they have to carry through into plans.

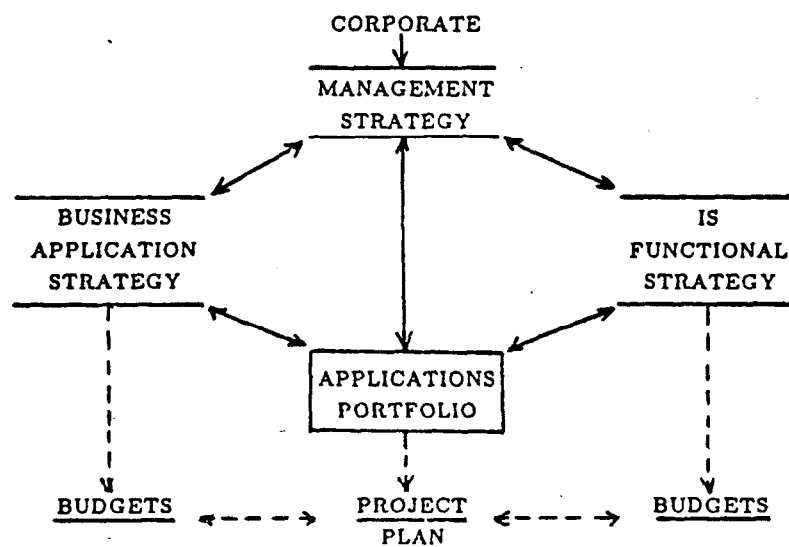
The structure outlined in the diagram below is aimed at achieving those objectives and

- a. enabling the organisation to produce and implement the strategy
- b. enabling strategy to be related easily to operational and budgeting planning.

The key objectives and overall subject matter to be addressed by each part of the strategy is then considered. The second part of these notes then addresses organisational roles and structures required.

STRUCTURE FOR THE STRATEGY

A STRUCTURE FOR IS STRATEGY



Structure & Organisation of *IS/IT* Strategy

The vital result of the strategy is a future applications portfolio which meets corporate and business needs and can be sustained in terms of technologies and resources. The relationship of the strategy and portfolio to plans and budgets will be considered in detail later.

ISSUES TO BE ADDRESSED BY THE STRATEGIES

(A) The Management Strategy

This should only address those issues which require a common strategy corporate wide, reflecting corporate strategic direction and corporate value systems.

In a highly centralised organisation there will be more of these than in a highly diversified conglomerate. (The specific information systems needs of the corporate body should be addressed in a corporate business unit strategy).

This part of the strategy should clearly state known corporate objectives and perceived critical success factors, and also contain a summary of key business *IS/IT* and functional *IS/IT* strategies where they have been consolidated and extracted to match those objectives and CSF's.

A few additional matters would normally also require corporate management's direct attention. These are:

i. ORGANISATION

Resources and the allocation of responsibility and authority for *IS/IT* decisions. This implies both formal structures and steering group overlay structures.

Essentially, this part of the strategy is defining the balance of the generic strategies required, what must be Centrally Planned, how much Free Market prevails, over what is there Monopoly control etc.

ii. INVESTMENT POLICIES

Implementation of the strategies will require many separate decisions on investments to be made. Management cannot consider each one in detail and certainly not continuously allocate priorities. Rules must be defined - pertinent to each of the elements of the portfolio (Strategic, Factory etc) stating how investments should be managed - need for financial evaluation and acceptance of business judgement of line and *IS* managers and the balance/discretion expected. It should state how the budgetting for expense and capital (including approval) and later project or capital expenditure allocation process tie together etc.

Also a mechanism, which reflects the investment decision making process, for "day-to-day" priority setting for resource allocation is needed to ensure the best return on investments is obtained.

Some measurement of results, and any control/audit procedures should be considered here.

iii. **VENDOR POLICIES**

These can be to state specific named vendors, although this may be very constraining. It is better to specify parameters which vendors must satisfy eg. interconnectability, financial soundness, service and support capability etc.

It may be necessary to identify "acceptable" vendors from whom line/local management can purchase without central approval always, merely in normal purchasing procedure. This will depend on the balance of central/free market strategies.

iv. **HUMAN IMPACT POLICIES (inc. Education)**

It is only too easy to jeopardise *IS/IT* strategies due to mismanagement of the people issues - new job content, re-organisation, even redundancy. Some organisations have "Technology agreements" with unions etc.

Where the "Social Environment" is a key input this must be adequately addressed at a corporate level. A common set of policies and guidelines must be laid down to avoid evolution by precedent and a negative reactive stance by those affected. Each project, in each area, with each new technology should not need separate negotiation - progress will be both slow and inconsistent - the strategy will undoubtedly be continuously disrupted

v. ***IS* ACCOUNTING POLICIES**

In many organisations strategies fail due to insensitive accounting policies for the charging of *IS* resources. The objectives of such policies should be clearly stated and understood. Whilst they initially appear to be management accounting systems for cost allocation, once implemented they become "transfer pricing" systems on which users will make decisions.

The policies will depend on, amongst other things:

- (a) other cost accounting/transfer pricing policies in place for other services.
- (b) profit/cost centre management of organisational units (inc. *IS* units)
- (c) the cost of administering the charging systems itself which when the budgeting complexity is added may prove very expensive to carry out.

(C) *IS/IT* Functional Strategy

This should not only cover the strategy of the "central" *IS* function, but also the responsibilities of users where appropriate.

It's prime purpose is to define how resources and technologies will be managed and developed to satisfy business *IS* strategies within the management strategy framework. In addition, it should reflect current trends and developments in *IT* which could cause future opportunities/constraints. It should normally at least address the following, preferably in business terms (not obscure jargon, using manufacturers acronyms and numbers!)

i. INFORMATION MANAGEMENT

- data and (possibly) text security, access policies, custody/ownership of, encryption, and should spell out any strategy for the development of an Information Centre

ii. COMMUNICATIONS SYSTEMS AND NETWORK

- Which should include voice, data, text (and image). Of all the areas, this normally should be centrally planned and controlled. The network is normally developed as a consequence of more than one application and the strategy should reflect growth of activity and the services to be made available.

iii. CAPACITY POLICY

(including back up capacity arrangements). Essentially, there are two strategies - to anticipate or react. Both are usually required! Some capacity flexibility must be built in to cover uncertainties in demand etc. It should be spelled out by service type - on line transactions, batch, user retrieval, timesharing, development, etc whatever the policy is. Whether services are to be resourced separately (ie. independently constrained) or to be mutually resourced in which case priorities must be set, and limits to be resource consumption may be imposed.

A few points are worth noting

- capacity policies may/should be different in the 4 sectors of the matrix.
- the growth of terminals and PCS are the main driving force for capacity on mainframe and mini computers in a network.
- the more complex the network, the more built in spare capacity is required.

This particular strategy should be closely linked with the hardware and network strategies.

Structure & Organisation of *IS/IT* Strategy

iv. HARDWARE AND SOFTWARE

The strategy should differentiate:

- Core system architecture hardware and software fundamental to the established systems base
- Optional hardware and software to enhance the core architecture (core vendor or separate vendor) - not application specific
- Application driven hardware/software required to satisfy certain types of requirement

Tight control should exist over vendor proprietary hardware/software to ensure compatibility and rules should be established which have to be satisfied before other hardware/software is generally allowed. The desires to avoid proliferation (and consequent costs) and to enable innovation have to be reconciled. A policy to remove/replace absolescent hardware/software should be included.

v. APPLICATION MANAGEMENT

The application management strategy should reflect the mix of application types in the matrix - which require different types of approach.

For each "box", a overall strategy is required which guides the use of techniques and standards with the objective of limiting risks and ensuring eventual integration can be achieved when required.

Separately from the strategy-guidelines in (eg.)

- : Project Management/Analytical, programming, etc
- : Documentation standards
- : Planning inputs required/budgetting
- : Performance measurement/estimating
- : Preferred/Proven tools and techniques
- : Financial information
- : Testing conventions and responsibilities
- : Roles of Professionals/Users/Managers etc

should be issued. Within these, any absolute requirements should be clearly defined as rules to be observed.

The strategy should reflect the mixture of these which is considered critical to each box. For example, the "pilot" of a turnaround system eg. Office Automation will (if managed appropriately) be affected by only a few of these guidelines, whereas a operational database rewrite will be to subject to a stricter interpretation of the guidelines.

vi. OPERATIONS

This strategy should address the key issues in managing existing systems and in-place technology and cover

- Service level objectives - uptime/response in line with expressed requirements
- Maintenance service objectives and allocation of responsibility for diagnostics and resolution
- Channels of communication on operational issues
- change management procedures
- Security Procedures
- Priorities in case of system failure

Whilst many of these will be particular to applications, some general strategies should be in place to minimise peculiarities of different applications and clarify basic responsibilities.

vii. ORGANISATION AND RESOURCING

There are two key elements

- (1) How the functions will be organised to deliver necessary services and how responsibilities are allocated.

- Operations, Systems Programming/Technical Services, Programming, Data Administration, Analysis, Information Centre, etc.

How those functions inter-relate and also relate to the business functions they serve. How and who plans what - how those plans are reconciled.

- (2) How the people required are to be recruited, trained, developed, satisfied in their careers. Are external "bought" resources to be used and why? Exchange of personnel with users etc.

The fact that a people strategy exists will in itself encourage the people! Perhaps they should help develop it.

The above are not meant to be comprehensive, merely to exemplify many of the issues that could be addressed by this part of the strategy.

Once more the strategy should be structured:

- eg. - Situation Appraisal (vis-a-vis eg. Hardware/Software
- reflecting needs, options, capability)

Structure & Organisation of *IS/IT* Strategy

- reflecting needs, options, capability
- Objective (what needs to be satisfied)
- Strategy/Priorities
- Actions/Activities proposed
- Issues/Problems/Uncertainties to be resolved.

Many of the above strategies may already be defined in specific procedures. The strategy should focus on the areas where change is necessary due to business requirements or new options available due to changes in technology or experience/capability accrued.

ORGANISATION FOR STRATEGY

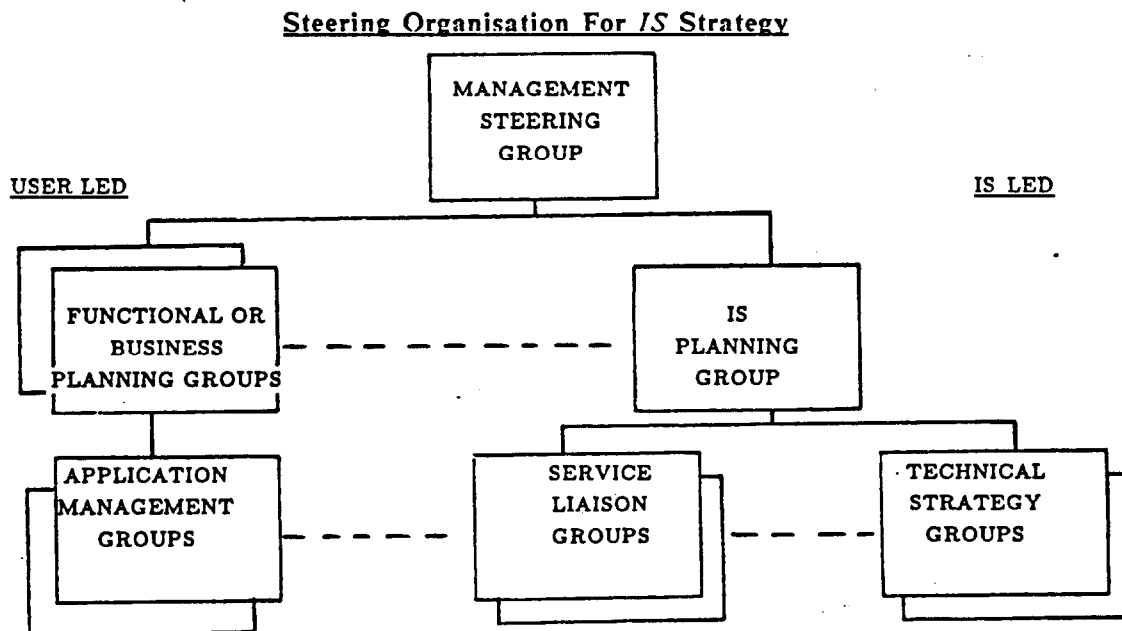
Moving *IS/IT* from a supportive to a strategic role will not happen unless organisational groupings are put in place which

- can develop and update the strategy in line with corporate needs and *IT* developments.
- convert the strategy into plans which can be resourced.
- implement the plans successfully.

Equally importantly, the structure must encourage a culture which raises the awareness of the strategic role and potential of *IS/IT* throughout the organisation.

As a general rule the groupings that develop the strategy should be responsible for implementing it. It is very difficult, both in the terms of knowledge and motivation, to implement someone else's strategy.

The structure pictured below is a model which addresses the needs above. The roles of the various groups are outlined in checklists later in these notes.



The same groupings are required to develop and implement the strategy.

The structure requires the establishment of a set of *dominant coalitions* for managing *IS/IT* throughout the enterprise - these will form of their own accord if not consciously established!

(A) Dominant Coalitions

Formal organisation structures are developed primarily to manage current business. Informal organisational groupings form in any enterprise which drive the enterprise forward - determine the future. These may not coincide with the formal structure - the forward development may be done by a subset of the senior management or by people outside the current executive group. "Dominant Coalition" is the name given to this power group. There will always be one for the organisation and/or major unit of the organisation - the people who effectively influence the decisions and make things happen.

In order to achieve strategic success for *IS/IT*, it is necessary to identify the "dominant coalition" for *IS/IT* and make it the Management Steering Group. The people on this group must

- (a) recognise the potential of *IS/IT* in the business
- (b) be keen to exploit *IS/IT* as a business "weapon"
- (c) have influence on the development of their own area of business
- (d) have the confidence of the senior executive to whom they report

There are many instances in both public and private sectors of "dominant coalitions" evolving from an initial attempt at a "IT Policy Committee" comprising the senior executives. Lack of time, knowledge or inclination, often recognised by the executives themselves, usually mean the "Committee" achieves little. But, the result is often delegation to appropriate staff who are better equipped to achieve results - for the senior executives to reflect upon and endorse - the dominant coalition has been formed.

Two points are worth noting

- if the management steering group is not the dominant coalition, then it will exist elsewhere - there is likely to be conflict, and the strategy cannot effectively be implemented.
- The steering group is a collection of people, not a collection of job titles. Individuals are what matter, not what role they are currently assigned. Inappropriate individuals will produce an inappropriate strategy.

(B) Strategy Style/Formality

The following notes are developed from surveys and analyses discussed in

Structure & Organisation of *IS/IT* Strategy

"Linking the MIS Plan with Corporate Strategy: An Exploratory Study" by
P.J. Pyburn (MIS Quarterly June 1983)

His findings have been overlaid on the strategic grid as below.

'Style' of Strategy Development/Implementation

STRATEGIC	TURNAROUND
PERSONAL FORMAL	PERSONAL INFORMAL
WRITTEN FORMAL	
FACTORY	SUPPORT

Also depends on:

- corporate culture
- geography of *IS* in relation to business units
- seniority of *IS* executive

i. WRITTEN/FORMAL

In the factory/support areas, it is both possible and desirable to write down most of the strategy and make it formally enforceable by all managers. Little uncertainty should exist in these segments and very little freedom of action is desirable or undue resources will be consumed and integration will not occur.

ii. PERSONAL/FORMAL

It is not feasible to write down in advance much of the strategy in the strategic/competitive box, because by definition, it will and should change and adapt to the business forces. The Steering Group is the key influence here - formalising the strategy through its decision making processes, which in turn will depend on the effectiveness of the personal interactions/responsibilities of

the group. Their "conclusions" must update the strategy as they are made and be communicated through the "strategic planning" groups.

iii. PERSONAL/INFORMAL

Even the personal/formal approach can be too restrictive for the turnaround box - R & D is difficult to formalise - the "product champion" requires significant freedom of action. This area requires trust, delegation and then patience, until results are achieved or the money has run out! Once results have been achieved, for better or worse, the findings can be included in the strategic processes more formally.

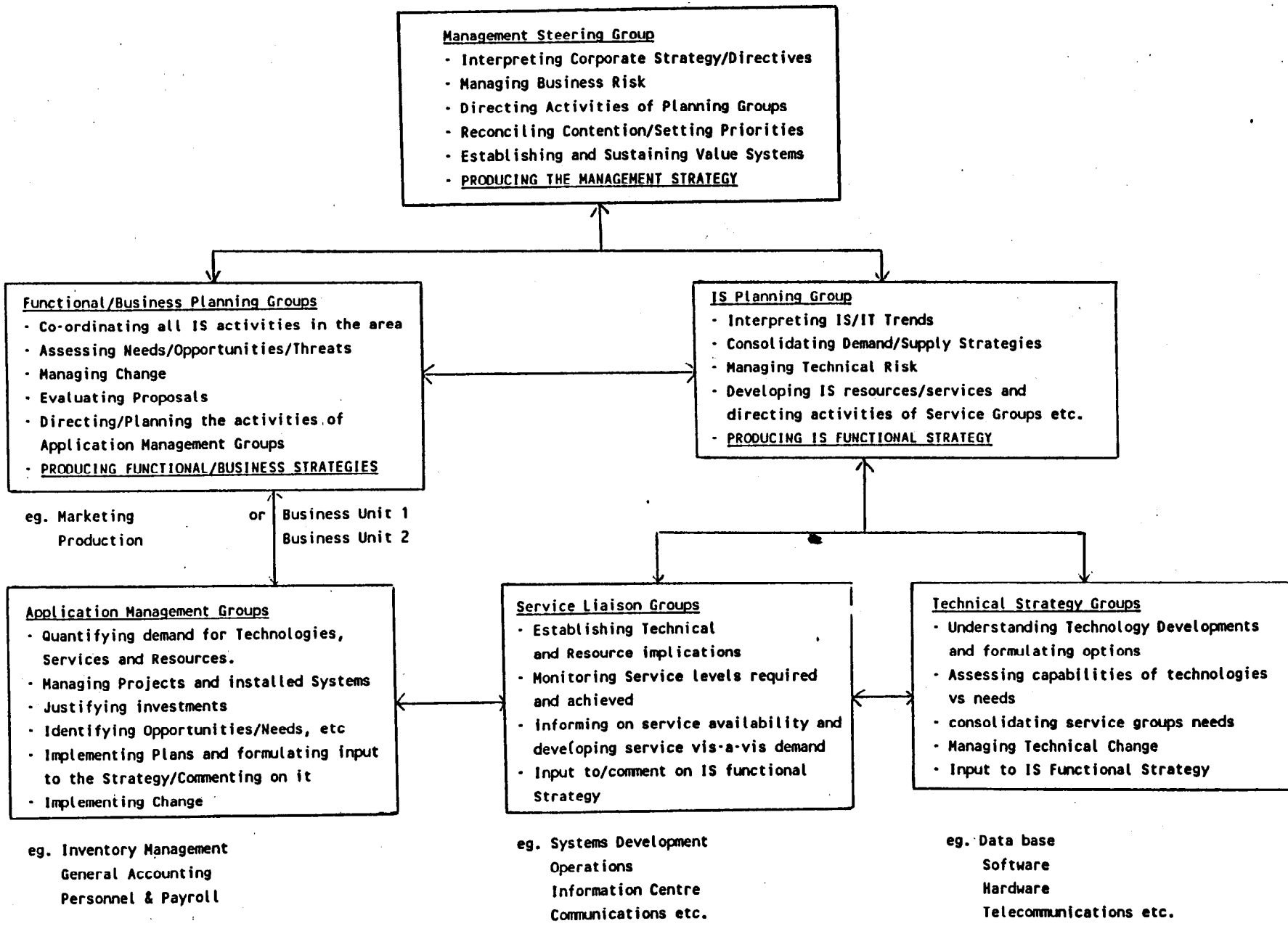
iv. OTHER FACTORS

Other factors which may change the above balance were identified by Pyburn:

- the whole organisation will have a strategic planning culture - which can be very structured or very informal - the *IS/IT* strategy will reflect that culture in terms of how much is written and how much is personal responsibility.
- the geography is important. If the *IS* division/department is geographically remote from the majority of the business operations, more will have to be written down to avoid misunderstandings!
- the seniority of the *IS* Executive also matters - the more senior/respected he is, the less he needs to be formally documented.

(C) . The Roles of the Groups

Below are direct lists to show what the main purposes of each group are:



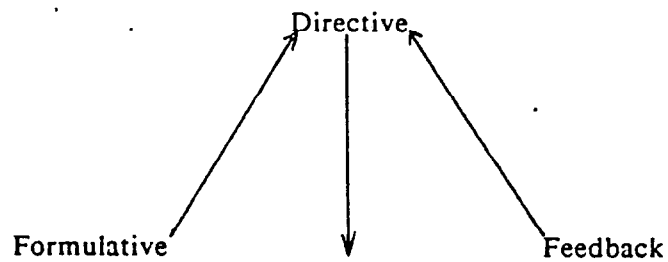
Structure & Organisation of IS/IT Strategy

These are not isolated groups. Membership should overlap both horizontally and vertically to ensure effective considerations and communications. Three levels are required since no one level will have or be able to make use of all the relevant information.

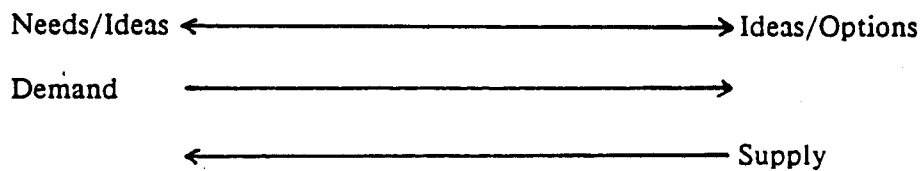
At the 3 levels in the structure, the key roles are:

- | | |
|------------------------|--|
| - Strategic Management | [Management Steering Group] |
| - Planning and Control | [Functional/Business Planning Groups
IS Planning Group] |
| - Implementation | [Application Management Groups
Service Liaison Groups
Technical Strategy Groups] |

The information flows are vertical



and horizontal



The communication should be continuous with more formality at the top of the structure.