

BOB'S BRIEF GUIDE TO BUSINESS PLANNING

"... it provokes the desire, but it takes away the performance"

said the porter at Dunsinane gate: just keep the distinction in mind

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Years ago, if I said I was 'in electronics' I would be asked if I could fix the television. Later, when I was 'in computers', it would be help with a home computer game. Nowadays, amongst other things, I am 'in business planning' for certain of my high-technology clients. So, of course, I am now asked if I can help others in quite different market areas, which do not fit well with the rest of my business.

Rather than turn people away, I jotted down the following thoughts. I hope they help.

The guide is not intended to be definitive. It is a simple introduction, to get you thinking and looking for the information which you will need to do your own business planning. It is not a substitute for proper training - many colleges offer business and management training which covers this subject.

There is no contents list. I have assumed that you are new to the subject and the guide is meant to be read straight through.

If you find that there are things which I have omitted, or even some with which you disagree, then we can both feel good. I can claim success in simplifying. You can glow with superiority: you obviously know enough not to need this introduction.



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With thanks to all those over the years whose ideas I have pinched, that I now give away so freely.

* Updated from time to time (latest edition 2008) - mainly clarifications. One subject I have not addressed here is the 'first mover advantage' whereby, in a new market, one captures market share quickly. It is often dismissed today as a freak phenomenon of the now collapsed dot.com bubble. But it may still have a role and I should discuss it if ever I get round to another revision.

What is a business plan?

Purposes of a business plan:

- to show that the business is planned and that the organisation is not freewheeling
- to show that the organisation knows how to run a business
- to illustrate the likelihood of success, survival, ... or the other
- to show that the problems associated with the intentions are understood and that there are contingency plans
- to show that investment will be used wisely
- to engender confidence in the reader

But these purposes are focused primarily on those outside the business. What is the benefit for the business itself? One is that if your 'reader' is an investor that you are trying to attract, then you may be successful. This is, of course, very important for those who need such investment, and it is often the primary motivation for an organisation to prepare a business plan.

But there is another and even greater reason for a business to produce a business plan for its *own* benefit, and this is ...

- *to get a sense of direction for the business.*

What a plan should contain:

- Background - where the organisation and this plan are 'coming from'
- Aims of the organisation
- Analysis of the environment of the organisation and, derived from that, a
- Plan for the future
- What you will do if things do not go according to plan

How should a business plan be constructed?

Like this:

- What business are you in?
- Where will the business come from?
- Why do you think it will?
- How will you get into position so that it will?
- What has to be done to get there?
- Who will do what?
- When will these things be done? - the action plan
- What if you don't succeed?
- How much will you make from all this, given what assumptions about how successful or unsuccessful you will be? - the financial projections

Now to run through each of these ...

What business are you in?

This is usually translated as the 'mission statement', but I did not put that as the heading because, too often, when you ask for a mission statement you get something in which 'mission' has been interpreted in some glory-seeking, 'mission impossible' sense - like "to be the biggest software company". Apart from 'software', which is a pretty broad term, this says *nothing* about the business.

The emphasis should be on the *role* in the market - not size, or some other attribute.

It often helps to get this definition of the business right by discussing what business the organisation is *not* in.

Another angle on this is to ask yourself - "What is the product?" While the production manager might say roller-bearings, the marketing manager *should* say anti-friction devices for people in the X, Y, & Z businesses. The marketing man should always see the product not as a product *per se* but in terms of what it *does* for the customer. He must think as if he were *buying* the product, and considering not just this product versus similar competing products, but this *type* of product versus quite different solutions altogether.

Or, as a colleague of mine put it, *you* may think that you are selling drills, but your *customer* is actually buying holes. To which I would add - unless, of course, the holes are to take bolts, in which case the customer may be buying fixings.

For an entirely new product, the buyer's choice is between this product and no product, since they've got along fine so far without you. Why should they buy? The 'no-need' choice is not only cheaper, it also requires least investment of management time in dealing with your sales pitch.

Are you selling one product, or several? From the buyer's perspective are they really different? Or are they just different lubricants - different ways of fulfilling the same need? Are they competing or compatible?

At some later stage in the planning process you will have to consider how you intend to differentiate yourself from your competition. But, even at this earlier stage of pondering on your mission statement, it is another useful handle on your own business. (And "being better", or "being bigger" is *not* the stuff of market differentiation, unless it can be made tangible in some way.)

Getting the mission statement right is important because it scopes the future activities of the organisation, whatever the current products and services it offers. In particular, it guides the choice of 'where' the business will come from, through a strong influence on the desirability of different market segments (some talk of market *vectors*). There is more on this a little later.

Where will the business come from?

'Where' does not flow directly from the mission statement. It is an outcome of the market analysis, which comprises both market segmentation, addressed here, and analysis and comparison of particular segments, which comes next.

In general, a supplier does not have 'A market'. The customers are generally members of various groups or *market segments*. And in a conventional, established company, 'where' will be the market segments - or even particular customers - that, based on the market analysis (see next section) are chosen for attack.

While the business *plan* will indicate the segments from which you hope the business *will* flow, as part of business *planning* you must first identify the segments from which business *might* flow. The first step is to identify *potential* market segments.

There is no unique segmentation. Markets can usually be segmented in any number of different ways - industry, location, technology, maturity, degree of regulation, ... and so on. The text-books don't give much help here - except by implication in that the benefit of concentrating on particular market segments is that it is *efficient* to do so. That is to say that there is some kind of 'economy of scale'.

This is why organisations are so concerned about their *market share*. We tend to think of market share as simply a performance measure, but there are other advantages to a large share. The most obvious is in manufacturing - especially of commodity products - where there are clear economies of scale in manufacturing. But there are other, marketing, benefits for large and small suppliers of both products and services.

In particular, there is an economy of scale when there is some kind of *community* 'out there'. So your own marketing is greatly facilitated by word-of-mouth recommendation within that community. This is one of the benefits of 'focusing'. It is particularly important when making a new market.

Given that there are usually umpteen different ways of segmenting markets, suppliers should beware *their* view of buyers. The fact that buyers of portable radios might look tall and thin or short and fat may be less important, from a marketing point of view, than their socio-economic grouping, their grouping according to the different ways in which they spend their leisure time, or their grouping according to the different ways in which they travel to work.

So what segmentation do *you* choose in order to gain marketing efficiency? What communities can you identify, and which are the most cohesive? Do not expect this to be fixed once and for all, nor expect necessarily mutually exclusive segmentation. The real world is rarely so neat and tidy.

Why do we think our business will come from our targeted market segments?

“Just a minute, ..” I hear you say *“.. we haven’t decided yet which segments we’re going for.”*

Quite. First we must analyse the market to estimate the *relative* potential of the segments that we *might* attack. That analysis will help us to prioritise them, and the ‘why’ will, in effect, be *‘because they came out as having highest potential from our market analysis’*.

There are whole text-books on market analysis. They usually give a collection of ways to analyse the market. But, in short, they all add up to the same thing - comparing the possible market segments in terms of both *their* desirability and *your* ability to address them.

Segment analysis

Before you can compare segments you must first analyse each segment which you have identified with regard to *its* desirability and *your* ability to take advantage of it.

Desirability may comprise, for instance:

- Market potential, in terms of, for example:
 - size - do try to put some kind of number on it, and set in the context of your present and future market share (some organisations concentrate almost entirely on market share in their business planning, but do *not* plan your business on the basis of simple extrapolation of market share!)
 - likely growth
 - recognised need, or emerging need, for products and services
- Compatibility with your ‘mission’ and your corporate cultural values
- Synergy with existing business - but be careful: this *might* be seen as wise exploitation of existing capability, but it sometimes reflects a closed-thinking, corporately self-centred, view of the world.

Ability may include:

- Resources
 - technical knowledge of the kind of offering for this type of market
 - market knowledge - just to be credible with customers, apart from the need to know how to attack the market.
 - availability of appropriate skills
- Accessibility
 - is the segment structured in such a way that it can be attacked economically? Fragmentation can be a problem.
 - does the organisation have contacts in this sector already?
 - if not, does the organisation have any well-connected friends?
- Competition
 - are there installed competitors?
 - are there potential competitors hovering, like you, around the honeypot?

These are only typical attributes. You will want to add or substitute your own factors which affect your own decision-making. If, for instance, you are

considering which of several product lines to pursue, you might instead - or as well - use profitability, risk, sales costs, or return on investment.

Two examples of typical, if brief, analyses follow. These examples are taken from a real market analysis for an organisation seeking to expand its presence in the assessment of safety-critical systems. (The results of these sectoral analyses were used to derive the 'blobs' of Figure 1, below.)

SECTOR: Medical Diagnosis

Desirability:

- *Market potential: size; growth; recognised or emerging need*
Market waiting out there for a better understanding of what to do to manage the technology. Obvious potential if only we knew how to do it. Litigation a big concern. Market not likely to be enormous in numbers, but recent public concern has raised profile.
- *Compatibility with the 'mission'*
ok & enhances ethical image
- *Synergy with existing business*
not much - maybe wrap in with equipment service as part of a consolidated thrust in combined super-sector?

Ability:

- *Resources: technical knowledge; market knowledge; availability of skills*
Strong capability in special technology of this sector. Should tap into existing contract partners from this sector for market knowledge (as well as technology).
- *Accessibility: structure; contacts?; friends?*
Structure?? Ministry man with technical interest could provide a focus - but would probably shy away as yet, (shd be developed?). Contract partners probably a gd source again, given likely slowness of development of this market.
- *Competition: installed competitors?; potential competitors?*
None of note. (?)

• Other comments

Definite potential, given 'central' role of these systems - few in number but with a lot of attention on them, but early days yet

SECTOR: Petrochemical Process Industry

Desirability:

- *Market potential: size; growth; recognised or emerging need*
Established market; recognised need; and potential desire for a UK alternative to existing suppliers. Limited growth potential, but possibility of recurring business.
- *Compatibility with the 'mission'*
ok
- *Synergy with existing business*
High; other parts of company already supplying different products to this sector

Ability:

- *Resources: technical knowledge; market knowledge; availability of skills*
Technical knowledge readily available. Market knowledge is accessible elsewhere in-house.
- *Accessibility: structure; contacts?; friends?*
Just a few well-known high profile purchasers; limited number of specialist suppliers. Recent regulatory changes promise a central focus, which will further facilitate access. This is a hard-bitten lot, so must be credible on technology, application, standards, and their use.
- *Competition: installed competitors?; potential competitors?*
Several others: established specialist market

• Other comments

A segment in which we would need to grow capability and credibility.

SWOT- What?

A simple and popular technique which can help to flush out desirability and ability attributes is SWOT analysis. SWOT? SWOT = Strengths, Weaknesses, Opportunities, and Threats.

There are the four sides to two coins:

- each Strength often has a Weakness on the obverse (and v.v.)
- each Opportunity often has a Threat on the obverse (and v.v.)

Here is a SWOT for one sector, from the perspective of a particular company. (Remember that this should be done for *each* potential sector.)

Strengths	Weaknesses
Technological capability Access through exis. collabn. Know major procurers informally Existing image in other sectors	No track record in sector Lack of domain technical knowledge Lack of detailed mkt. knowledge
Publicity re known problems Privatisation/internal mkts. 'Value for money' thrust Opening up of USSR/CIS	Panic → hasty action → business will go to major consultancies; Too rapid growth, led by existing names, will leave us as also-rans
Opportunities	Threats

Unfortunately, the form of the acronym - SWOT - leads to an inward-looking bias. Firstly, businesses tend to base their SWOTs on their current, *existing*, market place, whereas one purpose of market analysis must be to compare where you are with where you *might* be. (This is especially true for a start-up, of course.) Secondly, the matrix tends to be completed in the order - S,W,O,T. So organisations tend to identify their strengths first, then identify those opportunities which build directly on their strengths. This is a mistake.

Opportunities and threats should rather, at least in the first instance, come from outside - from what is happening in the market-place. And that should be the first step in segment analysis. What is happening out there? In particular, what is happening, not to *your* market, but to the market of your potential customers?

This should *not* be a general statement about, for example, growing concern about 'the environment', but how such a trend is affecting the particular market segment under discussion. Is there, for instance, new environmental legislation for this segment which requires a change in their working practices, which in turn means that they might buy your kind of services. Is industrial restructuring

creating new market opportunities? Will new technology change the trading relationships in the market?

For your own sake, keep it honest, please. Don't overhype your favourite segments, or belittle those of others. The idea is to have an informed discussion about your future direction.

Comparison of market segments

The intention now is to compare *what you would like to do most* with *what you are able to do best*, and to identify those segments which have the 'best' combination of these.

The comparison generally takes the form of one or more matrices of one or other of these attributes, or some aggregate of them, against another. One particularly famous approach is the 'Boston Matrix', which has market size/maturity on one axis, and market share on the other. Another, when considering potential new products, is, for each product, to plot profit potential against risk. The majority of possibilities will, of course, be spread through an arc from the mass market of low risk & low profitability to all the hare-brained schemes involving high risk in the pursuit of high profitability. But are there any low risk, high profitability options?

However, the problem with having lots of matrices, with different attributes on each, is that, in the middle ground, where there is a mixture of strengths *and* weaknesses, market segments will appear in different positions on different matrices, depending on which particular factors are selected for comparison. This can be very confusing - it is difficult to hold all the 'on the one hand and on the other' information, even in pictorial form, in one's head.

Personally, rather than rely on a single aggregate matrix alone, and rather than juggle lots of single attribute matrices, I prefer to produce a more-blobs-the-better table of the segments and their attributes (with acknowledgments to *Which?* magazine). *Desirability* attributes and *ability* attributes should be grouped separately, so all the *desirability* blobs appear in one bunch, and all the *ability* blobs in another. Figure 1, below, is a real example based upon an analysis of the options for an organisation seeking to expand its presence in the assessment of safety-critical systems¹. These blobs were derived from a full set of individual segment assessments like those for Medical Devices and the Petrochemical Process Industry shown above.

¹ Note that to get more blobs to indicate 'better', ¹/comptn. means 'lack of competition'

SECTOR	CODE	DESIRABLE?		ABLE?			OVERALL	
		Market	Synergy	Resource	Access	¹ /comptn.	D	A
<i>Medical ...</i>								
Equipment	ME	●●●	●	●	●	●●	●●	●
Diagnosis	MD	●	●	●●	●●	●●●	●	●●
Records	MR	●●	—	●	—	●	●	●
Machinery Control	MC	●●	—	●	?	●●●	●	●
<i>Road ...</i>								
Automotive	RA	●●●	●	●	●●●	●	●●	●●
Highway Signalling	RH	●●	●	●●	●●	●	●●	●●
Construction	RC	●●●	●●●	●●●	●●	●●●	●●●	●●●
Civil C3I	CC	●●	●	●●	●	●●●	●●	●●
<i>Rail ...</i>								
Signalling	TL	●	●	—	●	—	●	—
On-board control	TT	●	●	●	?	●	●	●
Construction	TC	?	?	?	?	?	?	?
<i>Shipping ...</i>								
Machinery Control	SM	●	●●●	●●●	●●●	●●●	●●	●●●
Navigation	SN	●●●	●●●	●●	●●	●●●	●●●	●●
Construction	SC	●●	●●●	●●●	●●●	●●	●●●	●●●
<i>Aerospace ...</i>								
Avionics	AA	●	●●	●	—	●	●●	●
Air Traffic Control	AT	●	●	●●	●	—	●	●
Structures	AS	●●	●●	●●●	●●●	●●	●●	●●●
<i>Process Industries ...</i>								
Petrochemical	PP	●●●	●●●	●	●●●	●	●●●	●●
Pharmaceutical	PH	●●●	●●	●	●	●●●	●●●	●●
Food processing	PF	●●●	●●	●	●●	●●●	●●●	●
Other chemical	PL	●	●●	●	●	●	●●	●
Other continuous	PO	●●●	●●	●	●	●	●●●	●
Water Treatment	WT	●●	●●●	●	●●	●●●	●●●	●●
Mining	MN	●●	●●	●	●●	●●	●●	●●
<i>Power Generation ...</i>								
Conventional	PC	●●	●●	●	●●	●	●●	●
Nuclear	PN	●●	●●	●	●●	●	●●	●
Distribution	PD	?	?	?	?	?	?	?
Structures	PS	●●	●●●	●●●	●●	●●	●●●	●●
Defence	DE	●●	—	—	●	—	●	—

Figure 1 A 'more blobs the better' assessment of a range of sectors

A 'more-blobs-the-better' table like this can help to identify particular segments of interest, but there are still a lot of blobs. One simple approach to data reduction is to aggregate the attributes (maybe weighted) into overall scores for 'desirability' and 'ability'. This 'overall' summary of desirability and ability appears on the right of the table above.

Without much more effort, it is possible to take those aggregated scores and use them to present the market segments on a summary matrix of desirability/ability (see Figure 2 below).

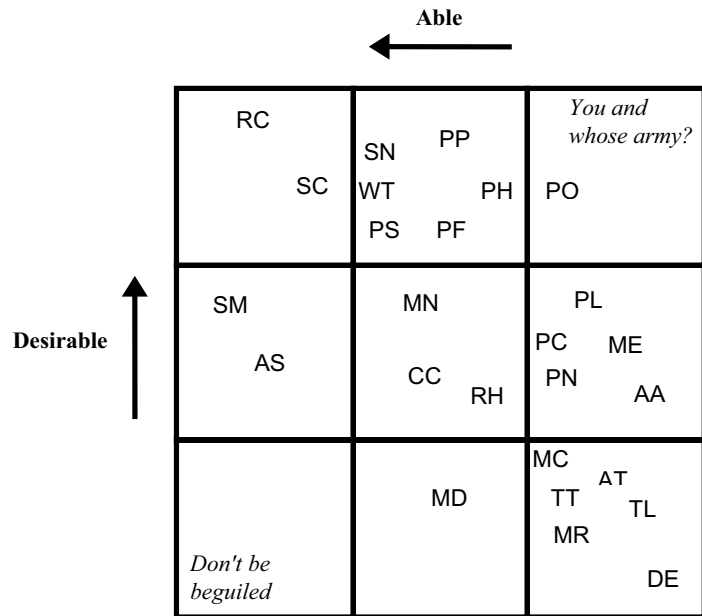


Figure 2: Market analysis summary matrix

It is important to remember that these tools are not intended to give ‘the answer’, nor to select the segments for you, but to open up discussion and thought about the issues. Often, the main benefit comes from trying to fill in the blobs - simply to ask questions like “How can we gain access to this market segment?”

And don’t expect to get the attributes list right first time. New factors will almost certainly emerge during analysis and comparison of particular segments. Indeed, you might recognise the existence of sub-sectors only when you find difficulty in agreeing the attributes.

Finally, a multi-product organisation will go through this exercise for each product and potential product, to compare the range on the basis of present and future *desirability* and *ability*.

Rumination: analysis of the analysis (see Figure 2 again)

- **ruminate**, *roo'min-at*, *v.t.* to chew over again (Chambers)

Surprises

Often, the answer which we get from such an initial and somewhat crude analysis is not what we expect or intuitively feel. Why not? It is not a question of whether either the figures or our intuition are *right*: the mismatch is just a useful prompt to explore our feelings and hunches. Are we deluding ourselves about some attribute of ourselves or the potential market? Have we been unbalanced in our assessment of the attributes of different segments? Is some particular attribute of a market more significant than the initial crude analysis shows?

Note that on Figure 2 the plots tend to be scattered about an arc passing from the area of greatest desirability and greatest ability to that of least desirability and least ability, with a bias in the more desirable but less able direction. This bias is quite normal for most organisations, and especially for start-ups and those actively addressing diversification. It is simply a reflection of the fact that there are more potential markets out there than the organisation can sensibly address. (However, if there were a very strong bias in that direction, then one might suspect a serious imbalance between aspirations and ability.)

Outliers

It is interesting to look at the outliers. Are there any which are very definitely in the most desirable yet least able area? The continuous processing sector (such as steel production) seems to be an example (PO). We now have to ask ourselves whether we have been attracted by an appealing market which is too difficult to attack, or whether we have a serious skill or other capability shortage with respect to an otherwise attractive potential market. Going back to the blobs, and where they came from, the answer is a bit of both. Here we have a well-established segment in which both new technology and new safety standards are being introduced, making it an attractive opportunity. But it is a *very* conservative sector, with firmly entrenched suppliers. We would look like little new boys: breaking into this market would not be easy.

On the other hand, an outlier in the less desirable but more able direction indicates that we have a strength which is appropriate to a market, but which we are not able to exploit (not yet, anyway). The obvious example which we have here is that of (automated) medical diagnosis (MD). When we look more closely, we see why. Here we have an underdeveloped market which will probably use a technology in which the organisation has a special capability, but which will probably be very difficult to develop, and which may always be too

small to be worth developing. Question: should we take special action to ginger up this market up so as to exploit the capabilities which we have? Could it be a long term banker in which we dominate? Or would such market creation, so early, benefit others who would pick up the technology later (possibly at much lower cost)? Well?

Any other surprises?

Yes. An example is the medical equipment sector (ME). Many people, myself included, suggested that this was a market ripe for exploitation. So why did it not rate more highly? The answer is that while there was indeed a lot of potential in this market, on the one hand (desirability) there was little synergy with the existing business of the organisation, and on the other (ability) the structure of the market makes access difficult, *and* there was likely to be considerable competition. This market promised to be something of a scramble. This is not to say that the market should not be attacked, but it does indicate the need for *very* careful consideration and planning.

Do you want to be yesterday's hero tomorrow?

A tricky issue which can crop up when considering different sectors is the distinction between the different technologies in use - or likely to be used in future. An attack on a market in a sector which uses old technology - the defence sector, for instance - might be a shackle which inhibits future technological and market development, simply because a mass of activity in that area will define the centre of mass of your organisation. On the other hand it might be necessary to be present in these markets in order to gain credence with the existing technological establishment.

A seat at the table?

A related issue is what to do about staying in with the 'scene', given that, almost by definition, this is dominated by those sectors where there is already established competition, and which are therefore less attractive from the marketing aspect. Does this mean that you *do* try to establish an operating presence in existing markets, and in all their standards scenes and so on, or can we get away with mere presence? This could soak up a lot of (expert) time and energy on something which does not contribute directly to the strategic goals, may even necessitate 'investment in the old', and might be no more than very expensive advertising. You could 'go with flow', and decide after all that you should make the best of a bad job and join the rest in targeting the existing, competitive market. But this is risky in its own right - coming late to the feast. An alternative might be to establish a platform for presence in the 'scene' through representation of the interests of the 'new' market that you intend to create. The disadvantage of this approach is that it draws attention to your intentions.

Synergy

So far I have talked of synergy in the context of synergy of proposed new business with your existing business. There is, as well, the synergy which exists *within* a market. This may be implicit in the identification of a particular market segment, such as the existence of a 'community'. Both of these types of synergy will have been taken into account in considering each segment separately.

But there is also the synergy which you might gain by tackling a *set* of markets *en bloc*. Typically this occurs when the supply chain or the technology is common or similar across segments. Looking again at figure 2, shipping construction and navigation segments share a common culture, related regulatory requirements and, often, common technology. They are already individually attractive: tackling both together would enhance one's prospects in both. Marine machinery control is rather different in style, but its community interacts with those of construction and navigation, which would increase the 'ability' rating even more if it were to be targeted as well as the others.

Open fields

Do not get over-excited about lack of competition. This usually means that the market still has to be made. You cannot have a ready-made market without competition, and *vice-versa*.

How? What? Who? When? What if?

In selecting the market segments which will be tackled, you will, along the way, have been considering the aspects of the organisation's ability which lead you to think that you can tackle it. So much of the *how*, *what*, *who*, and *when* should already be defined. The rest should be straightforward planning.

But .. *it must be planned*. And ... there must be *management* against the plan. And for management one must have *monitoring* and *control* - ie feedback and re-planning. So there must be mechanisms to monitor progress against the plan. And the plan itself must have sufficiently fine granularity that monitoring will allow timely reaction.

In the worst case, of course, there must be *contingency* planning. If you fail in the early ambitions, are you going passively to let the worst roll over you? What will you do instead?

How much? - financial projections, and the cash-flow forecast

Now you should have a clear view of your intended market. So, what are the cash flow implications for what you think will happen? How successful will you be? If unsuccessful, what will the financial impact of the contingency plan be?

Usually we talk casually of wanting to see *expected*, *best*, and *worst* cases.

By “expected”, we do not mean a statistically rigorous estimate, but what is your *sensible* hunch as to what you will actually achieve, without being overly optimistic or too cautious?

By “best” we do not include the prospect of the sudden arrival of a rich uncle from Australia, but what your hunch is on a good day, when you allow yourself to muse on how nice it would be if you won all those ‘reasonable likely’ contracts, rather than just the 30% you conservatively allow yourself to base your calculations on.

By “worst” we do not mean fire and flood, but what you really fear when you feel gloomy - at least one of your cast-iron sure-fire sell-on contracts going away, on top of a recession?

But ‘best’ and ‘worst’ should not be simple tolerances added to the initial projection. There should be some reasoned basis for them - “if this happens” and “if that doesn’t happen”.

And, of course, the ‘worst’ should not be simply the passive worst. It should be ameliorated by the contingency plan.

It does not matter if these are wet-finger-in-the-air-guesses or wild hunches as to what *might* happen. What matters is that however crude and sort-of-maybe-like-these your guesses are, they are not entirely random numbers. They are based on *your* informed opinion and hunches and seat-of-the-pants knowledge of the business.

So: What scenario do you envisage that leads you to your expected, best, and worst-case guesses?

Planning *per se*

Now the hard work begins - *real* planning. If you are starting from scratch, and maybe even if you are already established, you need an *action* plan to establish your presence in the market. You must make customers aware of you, and you must prepare to supply.

Do not assume that this necessarily entails lots of PR. You may choose instead to forgo the glory of publicity. A blaze of publicity will reveal you to your potential competitors, as well as to your potential customers. You may prefer to keep competitors in the dark.

First you must analyse each of those segments in *detail*.

- What is the structure of the market?
- What is the structure of the supply chain?
- Which are the key organisations?
- Remember SWOT? - Well what is happening ‘out there’ in your chosen markets? What are the specific happenings in the next year or so?
- Which organisations are involved in which of those activities?
- Who are the key players?
- What are the political forces which underlie the market developments?
- What will you do to exploit these ‘happenings’?

And then the rest ...

- will the people be in place, trained, in time? (This is tricky - do you recruit ahead of demand, with all the cash flow risks, or delay recruitment, and struggle in both meeting demand, if it happens, as well as growing the business? In the worst case, reluctance to take on staff without guaranteed demand might mean that you are simply unable to grow.)
- accommodation?
- infrastructure?
- are your own supply requirements defined, and contracts in place?
- publicity?
- sales plan?
 - and the rest of the rest ...
 - and who is going to do what in this plan?
 - and when will you review it? (Please don’t leave it a whole year.)

And that’s it - done. (Until the review, of course.)



Bob Malcolm ...

Since 1989 Bob has operated the consultancy, *ideo* Ltd, specialising in research strategy and management, including technology transfer. Bob advises industry, universities, and national and international governmental agencies.

Before establishing *ideo*, Bob worked for twenty years in systems development. In the late 1970's he was Chief Engineer of the Airborne Software Division in GEC Avionics, and later took responsibility for avionic software development projects. During the 1980's he moved to CAP, the software and systems house, taking various posts before becoming Research Manager for CAP Group and then Sema Group (UK).

Bob co-ordinated the Systems Integration Initiative for EPSRC and, previously, was coordinator of the Safety Critical Systems Programme for DTI and EPSRC. He has worked as systems engineer, research manager, quality manager, project manager, and business manager.

Bob is a member of a number of professional organisations. He is a former chairman of the Research & Development Society, inaugural chairman of the IEE (now IET) Informatics Division, and has chaired a variety of professional, industrial and academic groups.