

Deliberate and emergent strategies and origins of projects

By Alan Stretton

INTRODUCTION

As a broad general observation, writers on project management tend to discuss how projects originate in one of two ways.

- One group tends to focus on projects originating as part of the process of developing strategic portfolios of projects (and/or programs of projects) to help implement organizational strategic business plans.
- The other group tends to see projects originating in more opportunistic or ad hoc ways, with little or no direct involvement in organizational strategic plans – although commonly with a requirement for alignment with the latter.

The first approach links project initiation directly with formal organizational strategic business plans, but the second only indirectly. However, I have found a way of discussing the origins of projects in a single context, rather than in the above two different contexts, via a paper by Mintzberg & Waters 1985. They developed an approach which broadens the concept of organizational strategy, by proposing a continuum of strategies that have *deliberate* strategies at one pole of the continuum, and *emergent* strategies at the other. One can directly associate the planned approach of the first bullet point above with *deliberate* strategies, and the opportunistic or ad hoc approach of the second bullet point with *emergent* strategies.

This then enables us to look at the origins of projects in the context of the Mintzberg & Waters continuum of strategies. After some discussion of the latter, we will look at how the origins of projects can be seen to relate to a basic organisational strategic planning sequence, which appears to cover all situations. In the next issue of this journal I propose to extend these discussions into the achievement of organizational strategic business outcomes and benefits, and projects' contributions to these.

TYPES OF ORGANIZATIONAL STRATEGIES

A continuum of strategies from “deliberate” to “emergent”

Mintzberg & Waters 1985 discuss the results of ten years of researching the process of strategy formation. They begin with the following observation.

Since strategy has almost invariably been conceived in terms of what the leaders of an organization 'plan' to do in the future, strategy formulation has, not surprisingly, tended to be treated as an analytic process for establishing long-range goals and actions plans for an organization;

As important as this emphasis may be, we would argue that it is seriously limited, that the process needs to be viewed from a wider perspective so that the variety of ways in which strategies actually take shape can be considered.

The wider perspective they bring to bear derives from exploring the relationship between leadership plans and intentions (intended strategies), and what the organizations actually did (realized strategies). In their words

Comparing intended strategy with realized strategy, as shown in Figure 1, has allowed us to distinguish deliberate strategies – realized as intended – from emergent strategies – patterns or consistencies realized despite, or in the absence of, intentions.

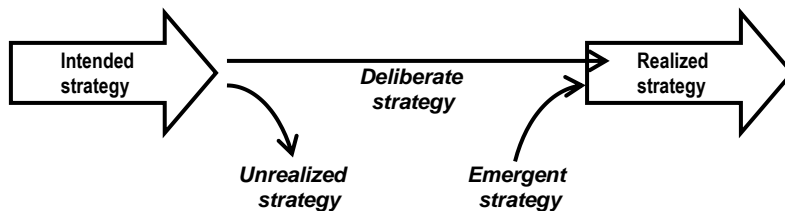


Figure 1: Based on Mintzberg & Waters, Figure 1. Types of strategies

Their paper explores “the complexity and variety of strategy formation processes by refining and elaborating the concepts of deliberate and emergent strategy”. They say,

Deliberate and emergent strategies may be conceived as two ends of a continuum along which real-world strategies lie.

Mintzberg & Waters identify eight strategies in this continuum, as shown in Table 1.

STRATEGY	MAJOR FEATURES
Planned	Strategies originate in formal plans Precise intentions exist, formulated by central leadership, with formal controls to ensure surprise-free implementation in benign, controllable or predictable environment Strategies most deliberate
Entrepreneurial	Strategies originate in central vision Intentions originate as personal unarticulated vision of single leader Strategies relatively deliberate but can emerge
Ideological	Strategies originate in shared beliefs Intentions exist as collective vision of all actors Strategies rather deliberate
Umbrella	Strategies originate in constraints Leadership defines strategic boundaries or targets within which other actors respond Strategies partly deliberate, partly emergent and deliberately emergent
Process	Strategies originate in process Leadership controls process aspects of strategy, leaving content aspects to other actors Strategies partly deliberate, partly emergent and deliberately emergent
Unconnected	Strategies originate in enclaves Actors loosely coupled to rest of organization produce patterns in own actions Strategies organizationally emergent whether or not deliberate for actors
Consensus	Strategies originate in consensus Through mutual adjustment, actors converge on patterns that become pervasive Strategies rather emergent
Imposed	Strategies originate in environment Environment dictates patterns in actions either through direct imposition or through implicitly pre-empting or bounding organizational choice Strategies most emergent, although may be internalised and made deliberate

Table 1: Types of organizational strategies – derived from Mintzberg & Waters 1985 Table 1

It can be seen that the first three strategies are predominantly deliberate, in that they originate in formal plans – i.e. with what we described in the first bullet point in the Introduction as organizational strategic business plans.

In a somewhat similar way, the last three strategies in Table 1 are predominantly emergent, and are readily associated with projects that are initiated in more opportunistic or ad hoc ways.

The remaining two strategies in the middle have substantial elements of both deliberate and emergent strategies. It will be noted that the Umbrella strategy includes a deliberately emergent component, which the authors describe as “the central leadership intentionally creates the conditions under which strategies can emerge”. They also say that all real-world strategies have umbrella characteristics.

Almost all strategy making behaviour involves, therefore, to some degree at least, a central leadership with some sort of intentions trying to direct, guide, cajole or nudge others with ideas of their own. When the leadership is able to direct, we move towards the realm of the planned or entrepreneurial strategies; when it can hardly nudge, we move towards the realm of the more emergent strategies.

I have represented a summary of the strategic continuum, and the above three groupings of its component strategies, as shown in Figure 2.

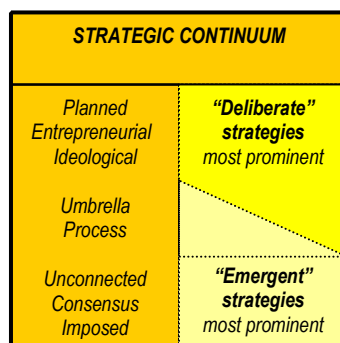


Figure 2: A summarised representation of the strategic continuum

I will be using this figure again in later discussions of strategic business planning.

“Emergent” strategies eventually become actual or de facto “deliberate” ones

Mintzberg & Waters also note that

....not a few deliberate strategies are simply emergent ones that have been uncovered and subsequently formalized.

Indeed, it would appear that most, if not all, emergent strategies eventually become formalized, albeit often in a de facto way, in the sense that, in some way or other, they eventually become part of the organization’s overall implemented strategy.

Therefore ad hoc or opportunistic (“emergent”) initiatives to improve an organization’s well-being are as much strategic initiatives as are formally planned (“deliberate”) ones.

This is a key point to be taken from the above discussions. This was exemplified by a reviewer, who noted that, for firms in the project services industry, or for young, smaller companies, emergent strategies might, in fact, follow “opportunities” with a new customer, new service, new industry or new location (say expanding internationally or across a border), and that such initiatives might grow into a broader strategy.

On a personal note, in my rather extensive experience in strategic planning in project-based organizations, the majority of our strategic initiatives were of the emergent type.

On the basis of the above discussions, it makes sense to adopt the broader perspective of organizational strategies proposed by Mintzberg & Waters, since this covers the whole range of planned and ad hoc strategies.

Shortly, we will be looking at how projects emerge from strategies anywhere in their strategic continuum. But we start with looking at a basic strategic planning sequence.

A BASIC STRATEGIC PLANNING SEQUENCE

I have discussed organizational strategic business planning in several earlier articles in this journal, most recently in Stretton 2016d, in which I developed the following basic organizational strategic planning sequence.

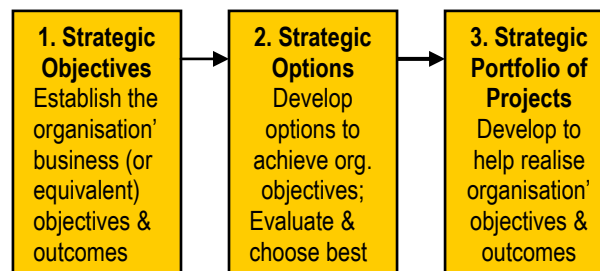


Figure 3: An abbreviated organisational strategic planning sequence

In the following discussions of strategic business planning, I will broadly follow these three stages, although the third stage will be substantially modified, to be less specifically project-oriented.

For each stage I will first discuss *deliberate* strategies which are directly associated with formal organizational strategies (as above), and then discuss the equivalent steps which I associate with *emergent* strategies. In the second and third stages I will also discuss the genesis of component projects.

STRATEGIC BUSINESS PLANNING: STAGE 1

“Deliberate” Strategies: Establish organizational strategic business objectives

Prieto (in comments quoted in Archibald et al 2012:23) says

In this Strategy stage an organization,, begins by defining what its strategic business objectives are. The significance of this step cannot be overstated.

Whether they are described as SBOs (Prieto’s abbreviation), Strategic Vision (PMI 2006a:Fig 1-3), Business Strategy (Jamieson & Morris 2004), or Strategic Objectives (Van Den Broecke 2005), there is wide-spread agreement that this is a necessary early definition. We look first at how the latter sees the development of strategic objectives.

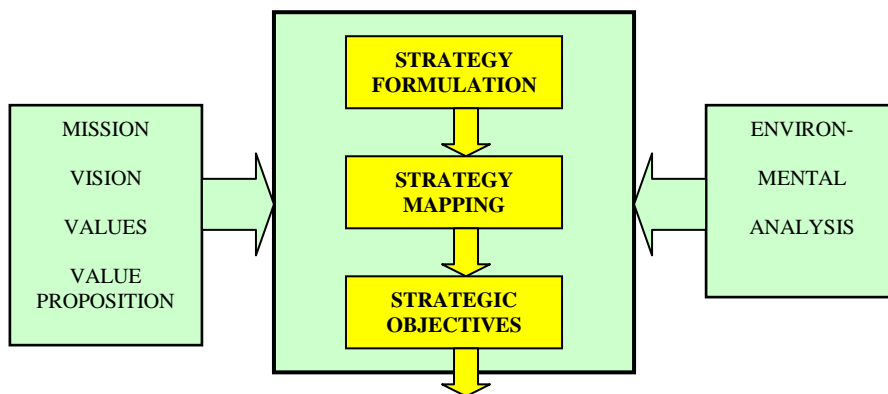


Figure 4: Part of Van Den Broecke 2005 P/p slide “Where do (strategic) programmes come from?”

It can be seen that there are many prior considerations, and substantial work, in Van Den Broecke’s depiction of processes involved in establishing organizational strategic objectives. Archibald 2009 has a somewhat different set of processes leading to his “Mission & purpose” statement, but they similarly involve addressing many issues, and a lot of work.

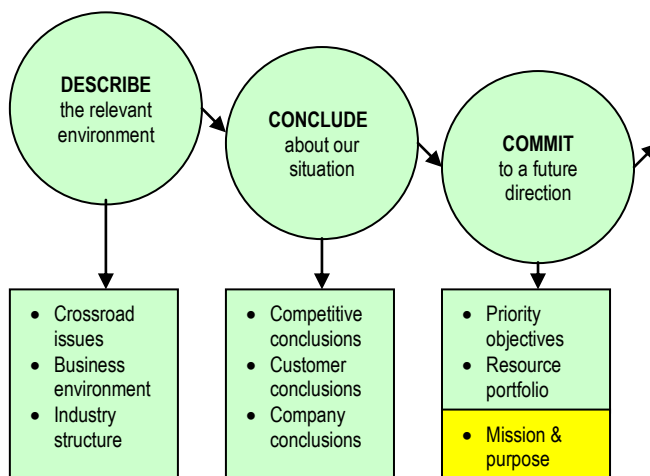


Figure 5: Part of Archibald 2009, Figure 1. The Growth Management Process for Strategic Management

Archibald does not go as far as Van Den Broecke in moving on to strategy formulation, strategy mapping and strategic objectives' but I believe his "Mission & purpose" implies the latter.

These are only two of the representations in the project management literature of the work leading to establishing organizational strategic objectives. But they are the most wide-ranging ones that I know of, and illustrate the complexity of the task.

We move on to look at the equivalent in the *emergent* sector of the strategy continuum.

"Emergent" Strategies: Elaborate details of perceived opportunities & benefits

The types of *emergent* strategies with which I became most closely associated in my nearly forty "hands-on" years (many of them as an organizational strategic planner), were what Mintzberg & Waters describe as *Imposed* and *Unconnected*.

In Lend Lease, *imposed* strategies, which essentially originated from externally imposed problems, were always seen as potential opportunities ("thinly disguised as problems", as the CEO of my later years, Stuart Hornery, would invariably describe them). The Lend Lease takeover of MLC Insurance in response to a potential corporate raider takeover threat was a good example, as described in some detail in Clark 2002:131-154.

Unconnected strategies were also rather common in Lend Lease. On more than one occasion I was a member of a group which had an "idea", and would mount a project to test it.

In the project management literature, several authors discuss strategies which emerge from an idea. For example, King & Cleland 1988 describe the emergence of an "idea" as follows.

The Conceptual Phase. The germ of the idea for a system may evolve from other research, from current organizational problems, or from the observation of organizational interfaces. The conceptual phase is one in which the idea is conceived and given preliminary evaluation.

APM 2012 refers to "an initial idea" in describing its Concept phase.

Strategies that evolve from perceived opportunities also feature in the project management literature. It is not always clear whether these are *deliberate* or *emergent*. However, opportunities do not wait for formal strategic planning updates to occur, so that the majority may well be in the *emergent* category.

I have been present at a couple of private corporate presentations by Ed Mellow, President & CEO of Independent Project Analysis Inc (IPA), in which he discusses "fashioning a real project out of a business opportunity" in the context of mega-projects, a process which he calls "Shaping".

This included at least two phases of Front-End Loading (FEL), which was described by Stanislaw Gasik (in Archibald et al 2012:21) as follows:

Front-End Loading (FEL) of a project can be described as the process by which a company (and project team) translates its marketing and technological opportunities into capital projects.

With regard to actions to be taken in this first stage of strategic planning in relation to *emergent* strategies, it is clear that the primary need is to elaborate on the details of the ideas, the perceived opportunities, and the like; and on the business (or equivalent) outcomes and benefits to be expected from executing the strategy.

Summarising stage 1 of strategic business planning

We can summarise these discussions as shown in the upper section of Figure 6.

Additionally, under Stage 1 I have added the descriptor *1. Establish / elaborate desired business outcomes / benefits*. This is intended to combine the shared elements of the descriptors relating to both the “deliberate” and “emergent” strategies, so that it is appropriate for all strategies in the continuum.

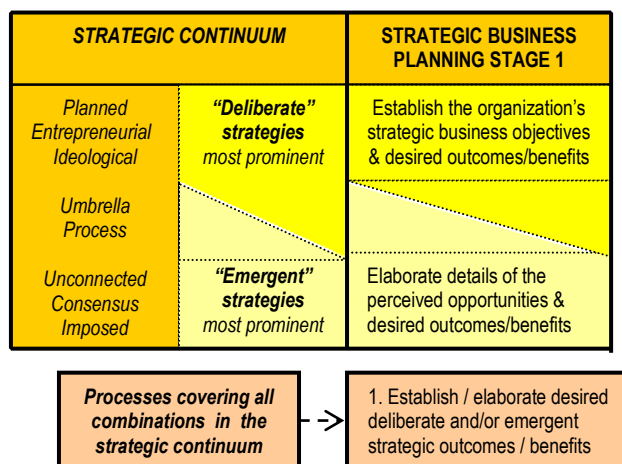


Figure 6: Summary of Stage 1 of strategic business planning

STRATEGIC BUSINESS PLANNING: STAGE 2

"Deliberate" and "Emergent" Strategies: Develop alternative approaches to realizing outcomes / benefits. Evaluate and choose the best.

I have combined the Stage 2 processes for both *deliberate* and *emergent* strategies, because, although their contexts are somewhat different, the processes are pretty much the same.

Developing alternative approaches

Strategy is translated into tactics (build this thing, in that place, with these characteristics) during the “Conception” phase. Optioneering is a technique of growing importance as complexity grows and trade-offs become multi-dimensional....

(Bob Prieto, in Archibald et al 2012:24)

Some representations of organizational strategic planning appear to move directly from strategic objectives to portfolios of programs/projects – e.g. Van Den Broecke 2005 and Jamieson & Morris 2004. This may well be possible in some contexts. However, most planning processes start with developing alternative approaches to reaching objectives, analysing these alternatives, and choosing the best option – and this also generally applies to strategic business planning processes.

Prieto has coined the term “optioneering” to describe this, as indicated in the lead quote to this section. Archibald has described the processes simply as “Alternative strategies” (the first bullet point of the right hand text box in Figure 7 below, which has been added to Figure 5).

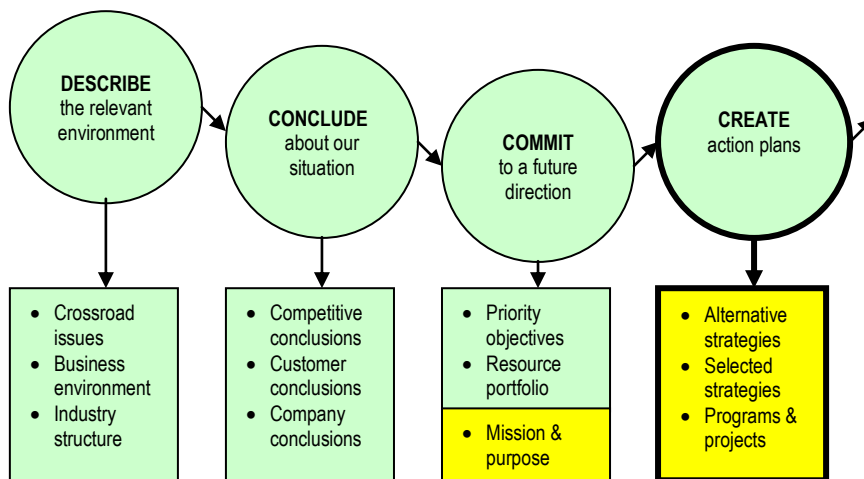


Figure 7: Part of Archibald 2009, Figure 1. The Growth Management Process for Strategic Management

(It will be noted that Prieto uses the term “tactics” to describe approaches to help achieve organisational strategic objectives, whilst Archibald calls them “strategies”. Dalcher 2017 talks of both “strategic initiatives” and “strategic themes”. I will mainly be using the terms “strategies”, “strategic options” and “strategic approaches”).

The development of alternative approaches to achieving strategic business outcomes does not appear to get the attention it deserves. This approach was de rigueur in all planning activities in Lend Lease, as Murphy 1984:97 records:

...in Lend Lease ‘all available options must always be considered’ ...

With both *deliberate* and *emergent* strategies, alternative approaches will nearly always include consideration of projects. This is where projects first appear in the strategic planning process, and we will have more to say about this shortly.

One of the best indicators of the issues that may need to be addressed in developing and assessing strategic options comes from Prieto (in Archibald et al 2012:22), in the context of mega-projects, where he describes such efforts as including:

- | | |
|--------------------------------|-----------------------------------|
| a) Computer models; | g) Permitting; |
| b) Conceptual level estimates; | h) Project financing; |
| c) Environmental studies; | i) Scope definition; |
| d) Feasibility studies; | j) Siting; |
| e) Labour and wage studies; | k) Technology/licensor selection; |
| f) Master plans; | l) O&M readiness reviews. |

Now, few alternative strategies will need to consider all of these issues in all contexts, but this seems to me to be a useful checklist. Certainly, if this stage is not done thoroughly, chances are that the best strategic option may not be chosen.

Evaluating the strategic options and choosing the best

A key point to be made here is that, whatever the context, a lot of work is required in developing strategic options if a proper and meaningful assessment is to be made, and the best option chosen – issues such as order of magnitude estimates of costs, timing, scope, and other issues which are key to assessing feasibility of each alternative, and being able to make relevant comparisons between alternatives.

These two sets of actions are represented by the second and third bullet point in the right-hand text box in Archibald's Figure 7 above. If the order of magnitude estimates of costs, timing, scope, and other feasibility-related issues for each alternative approach have been adequately done, then evaluating the options and choosing the best should be relatively straight-forward. This is particularly relevant to the project component of the best option.

The emergence of projects in this stage of the strategic planning process

As noted above in relation to developing alternative strategic approaches, both *deliberate* and *emergent* strategies will include consideration of projects in virtually all cases. This is where projects first appear in the strategic planning process. Importantly, in choosing the best option, we are, in effect, initiating the relevant project(s). We will have more to say about this after discussing Stage 3.

Summarising to the end of stage 2 of strategic business planning

The following figure summarises the above discussions on stage 2, and adds them to the summaries of Figure 6.

As I did for Stage 1, I have appended a common descriptor of what is involved in Stage 2. Additionally, I have flagged that developing alternative approaches to achieving the strategic objectives invariably involves potential projects, and that choosing the best initiates the project(s) which will be further developed.

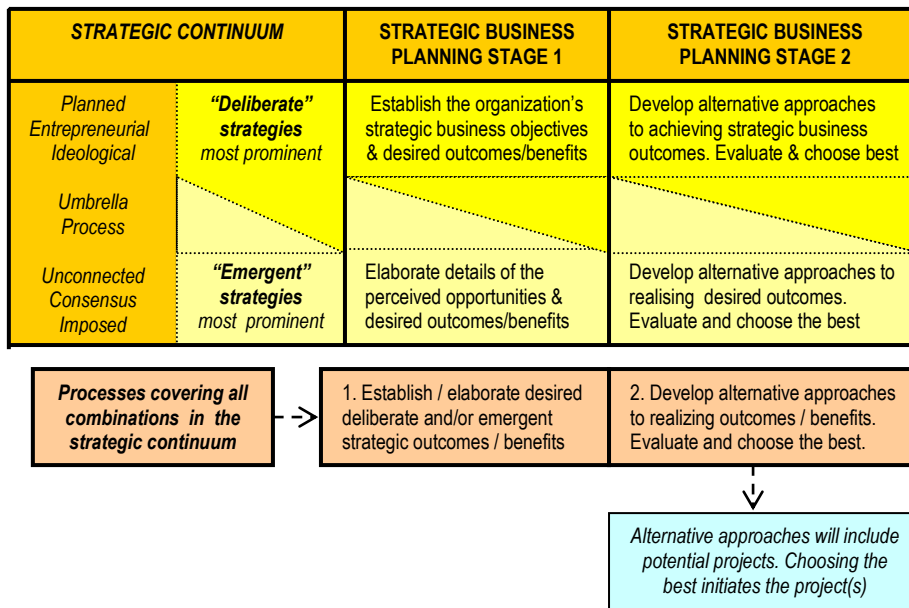


Figure 8: Summary to the end of Stage 2 of strategic business planning

STRATEGIC BUSINESS PLANNING: STAGE 3

"Deliberate" and "Emergent" Strategies: Augment / consolidate chosen approach for non-project work and projects. Confirm feasibility.

As I did for Stages 1 and 2, I have appended the common descriptor of what is involved in Stage 3 in Figure 9 below.

Augmenting/consolidating non-project work

In the project management literature, this stage tends to focus on the component project(s) of the chosen approach. However, there are also non-project components, which are often more substantial, and sometimes much more substantial, than the project component. So these non-project components need to be augmented and/or consolidated, because their contributions are part and parcel of the data needed to confirm (or not confirm) the overall feasibility of the chosen approach. The link to developing these non-project augmented / consolidated materials in even more detail in subsequent strategic management stages is indicated by a dashed horizontal arrow in Figure 9. This will be further developed in the next issue of this journal.

Augmenting/consolidating the basic parameters of project(s)

We turn now to the project(s) component, which in many, if not most cases, will loom large in the chosen approach. I have appended the text-box *Augment / consolidate basic parameters of component project(s)* below the common strategic planning descriptor. This is linked back with the previous project-specific text box *Alternative approaches will include potential projects. Choosing the best initiates the project(s)*, for obvious reasons.

It appears to me that Archibald et al 2012 best capture what is needed in augmenting and/or consolidating the basic parameters of component project(s) of the chosen approach, as follows.

In almost every case the standard “Project Starting Phase” must begin with a reasonable understanding of what the principal objectives, scope, schedule, and cost of the project are expected to be, including:

- What the project will create
- What business benefits will be produced
- Verification that the project is aligned with the strategic plans
- A reasonable idea of the overall scope of the project together with its expected time schedule and cost, and whether the needed money and other resources can reasonably expected to be available
- Preliminary or conditional approvals that the project will require
- Overall economic, technological, political, social, and physical feasibility of the project, including the level and acceptability of the various risks

Summarising to the end of stage 3 of strategic business planning

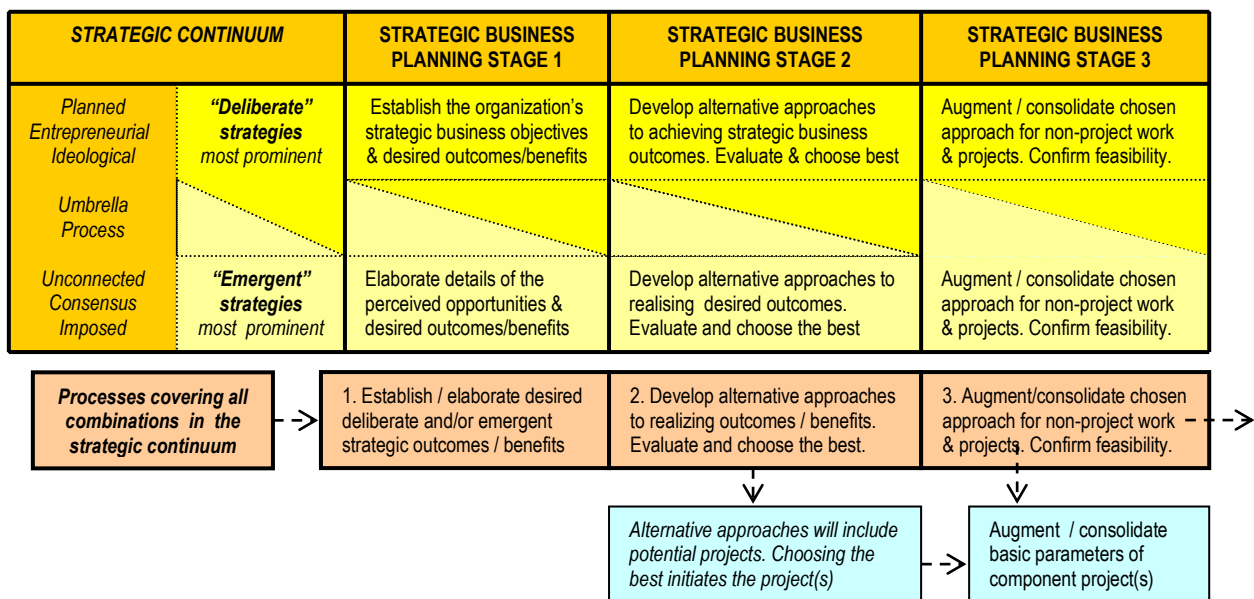


Figure 9: Summary to the end of Stage 3 of strategic business planning

On a question of terminologies it will be noted that I have chosen the descriptor *project(s)* in discussions to date. The project management literature has substantial discussions on both *portfolios of projects*, and *programs*, and I tried to include them in earlier drafts. However, they tended to make these basic discussions about origins of projects somewhat unwieldy, so I decided to stick with *project(s)*, and not be concerned with how multiple projects are configured for management purposes.

We now turn to a discussion of the origins of projects as they have emerged above.

DISCUSSION ON THE ORIGINS OF PROJECTS IN THE CONTEXT OF THE STRATEGY CONTINUUM AND STRATEGIC PLANNING STAGES

We have seen that projects first appear in Stage 2 of the strategic business planning process, in the context of developing alternative approaches to realizing outcomes / benefits – approaches which invariably include potential projects. The evaluation of these alternative approaches requires that order-of-magnitude estimates of costs, timing, scope, and other feasibility-related issues will have to be made for each alternative, including of course their component projects. When the best alternative is chosen, this process effectively initiates the specific component project(s).

Healy 1997 calls this stage a *Transition Phase*. Prieto (in Archibald et al 2012) calls it a *Studies Phase*, or *Conception Phase*. The latter descriptor is quite commonly used in the literature, but most often in a less explicit context, which may or may not include these Stage 2 processes.

Archibald et al 2012 call this an *Incubation* phase (part of their broader *Incubation/Feasibility Phase*). I have favoured the descriptor *Incubation*, mainly because it is much more specific than *Conception*. This choice is reflected in Figure 10 below.

As just indicated, I see the choice of a specific alternative approach at the end of Stage 2 as *initiating* the specific project(s) which are then further developed to help achieve the organization’s strategic outcomes and benefits. As far as I know, this is a new way of looking at how and when projects are initiated.

Stage 3 augments and consolidates the chosen approach. In the context of its component project(s), this stage is essentially concerned with examining the feasibility of the chosen project(s), leading to a “go-no go” decision. Following the lead of Archibald et al 2012, and many others, I call this the *Feasibility Phase*.

If a “go” decision is made, I have indicated in Figure 10 that this leads to a “project start” (again following Archibald et al 2012). I intend to expand on this in a broader overall organizational strategic context in the next issue of this journal.

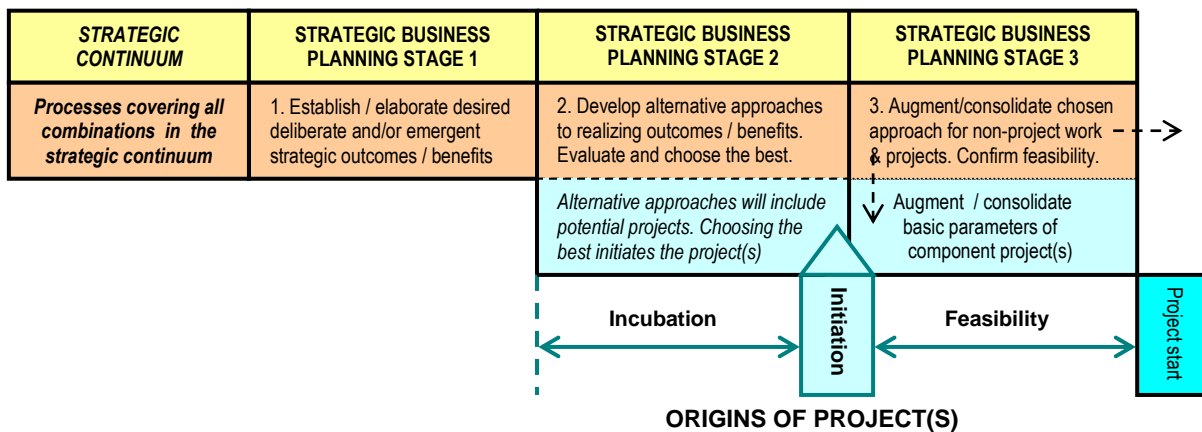


Figure 10: Representation of project origins related to strategic planning stages

CONCLUSION

Although I did not declare it at the outset, my main purpose in researching and writing this article has been to try and make sense of the many and conflicting ways in which writers in the project management literature have depicted how projects originate. I chose an initially non-project route, mainly because I recognised long ago that projects are not an end in themselves – they are always part of a means of trying to achieve broader ends. In this article I chose to relate the origins of projects to an unusually broad organisational strategic framework proposed by Mintzberg & Waters.

In the introduction it was noted that writers on project management tend to discuss how projects are initiated in two different contexts – the first in the context of organizational strategic business planning, and the second in basically ad hoc contexts, via an idea, or perceived opportunity, or similar.

We then discussed an organizational strategy continuum proposed by Mintzberg & Waters, which represented the planned context above as being at the *deliberate* end of the continuum, and the ad hoc context at the opposite *emergent* end. It was also recognised that *emergent* strategies eventually become actual or de facto *deliberate* ones. Therefore ad hoc or opportunistic (“emergent”) initiatives to improve an organization’s well-being are as much strategic initiatives as are formally planned (“deliberate”) ones. So, rather than separate the two approaches, we can see them as variations on the organizational strategic framework developed by Mintzberg & Waters. This is one of the key tenets of this article.

I then proposed a basic three-stage organizational strategic planning sequence. The first stage is somewhat different for *deliberate* and *emergent* strategies, but I combined them into “*Establish / elaborate desired deliberate and/or strategic outcomes / benefits*”. The descriptors for the processes for each strategy in Stage 2 are virtually identical, and are covered by “*Develop alternative approaches to realizing outcomes / benefits. Evaluate and choose the best*”.

Coming now to the main subject of this article – the origins of projects – it is in this second stage of the strategic planning sequence that projects first appear. This is first in the context of developing alternative approaches, which practically invariably will include potential projects; second in evaluating the alternatives, which will require order of magnitude estimates of costs, timing, scope, and similar for each potential project; and third in choosing the best alternative, which, in effect, initiates the project(s) which will be part of the efforts needed to achieve the planned business outcomes and realize the benefits. I have adopted the Archibald et al 2012 descriptor *Incubation* to describe this phase of the origins of projects.

Coming to the third stage of the strategic planning sequence, the planning processes for each type of strategy are identical, taking the form of “*Augment / consolidate chosen approach for non-project work and projects. Confirm feasibility*”.

There are two components of the chosen approach. One is the development of the non-project work plans to best facilitate realization of the desired business outcomes. As will be seen in my article in the next issue, I make specific provision for this in a broader strategic framework.

The other component of Stage 3 of the strategic planning sequence is the project component, which involves augmentation and/or consolidation of the basic parameters of the component project(s). A checklist by Archibald et al 2012 indicates the very considerable amount of work which may be involved in doing this.

Basically this augmentation and consolidation of component projects is needed to confirm – or otherwise – that, along with the non-project work, they are the right projects to most effectively contribute to the realisation of the organization's strategic objectives. In other words, this is a key feasibility phase, to help in making an optimum go/no-go decision to formally proceed with the project(s). Along with many project management writers, I am happy to describe this as a *Feasibility* phase.

In a follow-up article in the next issue of this journal, I will be extending the above models into the broader context of the whole spectrum of strategic business management, whose aim is the achievement of the planned business (or equivalent) outcomes, and realization of the benefits there-from. The project management processes which contribute to these will be correspondingly extended.

SUMMARY RE THE ORIGINS OF PROJECTS

- Projects are *incubated* in the process where strategic planners develop alternative approaches to realizing organizational strategic objectives, which invariably include potential projects. This set of processes specifically covers both formally planned (“deliberate”) and ad hoc or opportunistic (“emergent”) strategic initiatives.
- Evaluating the alternative approaches will require order of magnitude estimates of costs, timing, scope, and similar for each potential project in each alternative.
- A project, or projects, is or are, *initiated* when a decision is made about which alternative approach will be further pursued. The basic parameters of the project(s) will have been established by the order of magnitude estimates.
- The project details and estimates in the chosen alternative approach are then augmented / consolidated so that their feasibility can be more precisely assessed. This is commonly called a *feasibility phase*.
- If the feasibility is confirmed, the project enters what Archibald et al 2012 describe as the *Starting Phase*, which I indicated in the final figure above by “*Project start*”.

There are still some representations of projects which appear to imply that projects originate at this point – but, as this article has clearly shown, projects actually originate much earlier.

A reviewer of an earlier draft of this article posed the question as to whether or not the above model of the origins of projects fits all industries, project types, public and private, etc. Obviously it is a question I cannot answer, and probably no-one could. This suggests that I ask readers to let me know of any projects whose origins are not covered by this model. So I am now formally asking readers for such feedback.

A LATE POST-SCRIPT

In the last issue of this journal, David Tain published an article which is very relevant to the above (Tain 2017). He says that modern 4th generation organizations structure their strategic management processes so that they engage with their business environment in a way that increases their capacity for absorbing knowledge of that environment, and upgrades their preparedness for external change. Tain describes how to go about doing this in substantial detail.

An important consequence of this is that, instead of simply reacting to external changes in the environment with strategies which may not always be the best in the longer term, particularly with emergent strategies, to some extent at least these organizations can become more pro-active by developing a knowledge-based framework which is much better informed about what is happening in the environment, and can therefore help in choosing more appropriate strategies, both deliberate and emergent.

Such a strategic framework would provide a more informed structure for the initiation of both types of strategies, and thence for the origins of their component projects.

REFERENCES

APM (Association for Project Management) (2012). *APM Body of Knowledge*. 6th Edition. High Wycombe, UK; Association for Project Management.

ARCHIBALD, Russell D (2009). Five decades of modern project management: Where it came from – Where it's going. *PM World Today*, Vol XI, Issue X, October.

ARCHIBALD, Russell D, Ivano Di Filippo & Daniele Di Filippo (2012). The six-phase comprehensive project life cycle model in the project incubation/feasibility phase and the post-project evaluation phase. *PM World Journal*, Vol I, Issue V, December.

CLARK, Lindie (2002). *Finding a common interest: The story of Dick Dusseldorp and Lend Lease*. Cambridge, UK; Cambridge University Press

DALCHER, Darren (2017). We need to talk about strategy. *PM World Journal*, Vol VI, Issue VII, July.

JAMIESON, Ashley & Peter W G MORRIS (2004). Moving from Corporate Strategy to Project Strategy. In *The Wiley Guide to Managing Projects*, Eds Peter W G Morris & Jeffrey K Pinto, Hoboken, NJ; John Wiley & Sons. Chapter 8, pp 177-205.

KING, William R. & David I. CLELAND (1988). Life-cycle management. In *Project Management Handbook, 2nd Ed*, Edited by Cleland & King, New York, NY; Van Nostrand Reinhold. Chapter 9, pp. 191-205.

MINTZBERG Henry & James A WATERS (1985). Of strategies, deliberate and emergent. *Strategic Management Journal*, Vol 6, pp 257-272.

MURPHY, Mary (1984). *Challenges of change: The Lend Lease story*. Sydney, Lend Lease Corporation Limited.

PMI (PROJECT MANAGEMENT INSTITUTE) (2006a). *The Standard for Program Management*. Newtown Square, PA: Project Management Institute

STRETTON Alan (2016d). Series on project management's contributions to achieving broader ends (3): Linking organizational strategic planning, projects, and strategic outcomes. *PM World Journal*, Vol V, Issue IV, April.

STRETTON Alan (2016b). Series on project management's contributions to achieving broader ends (1): Project outputs and customers' outcomes. *PM World Journal*, Vol V, Issue II, February.

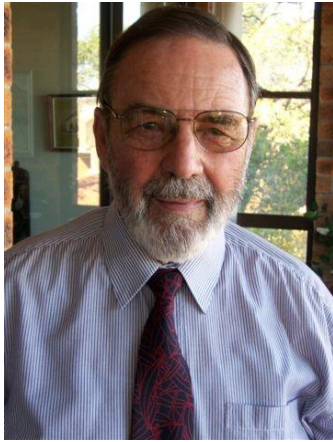
STRETTON Alan (2015d). Project Successes and Failures Series (5): Approaches to increasing Level 3: "Business" success. *PM World Journal*, Vol IV, Issue IV, April.

STRETTON Alan (2013k). Involving program/project managers in organisational strategic planning?. *PM World Journal*, Vol II, Issue X, October. (2nd Edition; Original Stretton 2011j)

TAIN, David (2017). Creating 4th gen organizations: The quest towards an effective adaptation and co-evolution with the business environment. *PM World Journal*, Vol VI, Issue X, October.

Van Den BROECKE Erik (2005). Realising strategy in turbulent environments: A role for programme and portfolio management. ESC Lille, 5th *International Project and Programme Management Workshop*, August.

About the Author



Alan Stretton, PhD

Faculty Corps, University of Management
and Technology, Arlington, VA (USA)

Life Fellow, AIPM (Australia)



Alan Stretton is one of the pioneers of modern project management. He is currently a member of the Faculty Corps for the University of Management & Technology (UMT), USA. In 2006 he retired from a position as Adjunct Professor of Project Management in the Faculty of Design, Architecture and Building at the University of Technology, Sydney (UTS), Australia, which he joined in 1988 to develop and deliver a Master of Project Management program. Prior to joining UTS, Mr. Stretton worked in the building and construction industries in Australia, New Zealand and the USA for some 38 years, which included the project management of construction, R&D, introduction of information and control systems, internal management education programs and organizational change projects. He has degrees in Civil Engineering (BE, Tasmania) and Mathematics (MA, Oxford), and an honorary PhD in strategy, programme and project management (ESC, Lille, France). Alan was Chairman of the Standards (PMBOK) Committee of the Project Management Institute (PMI®) from late 1989 to early 1992. He held a similar position with the Australian Institute of Project Management (AIPM), and was elected a Life Fellow of AIPM in 1996. He was a member of the Core Working Group in the development of the Australian National Competency Standards for Project Management. He has published over 180 professional articles and papers. Alan can be contacted at alanilene@bigpond.com.au.