Series on general management functions and activities, and their relevance to the management of projects

Article 5 of 7

Management Staffing Function and Activities

By Alan Stretton

BACKGROUND TO THIS SERIES

General management provides the foundation for building project management skills and is often essential for the project manager. On any given project, skill in any number of general management areas may be required. General management literature documents these skills, and their application is fundamentally the same on a project. (PMI 2004:15)

The above quotation reflects the widely acknowledged importance of general management skills in the management of projects. However, the coverage of such general management skills in the project management literature is uneven. Some aspects are quite well covered, but others less so.

This series is primarily concerned with presenting a broad coverage of traditional/classical materials on general management, which hopefully may fill in some of the gaps in current coverage in the project management literature. Its intention is to help project managers either directly, or by guiding them to sources for more detailed coverage of particular general management materials.

Another aim of this series is to look at various ways in which the functions and component activities of general management are relevant to the management of projects. I have tended to focus on materials that I have found to be most relevant and/or useful in over sixty years’ experience in both forms of management.

The first article of the series (Stretton 2015g) presented a management knowledge framework, whose main functions are summarized on the right. The second article (Stretton 2015h) developed the “basic” function of management planning, the third (Stretton 2015i) management organizing, and the fourth (Stretton 2015j) management leading.

This fifth article discusses the function of management staffing, and its component activities, selecting people and developing people, and discusses their relevance to the management of projects.

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1 This series of articles on the relevance of general management activities and functions to project management is by Alan Stretton, PhD (Hon), Life Fellow of AIPM (Australia). Alan is a pioneer in the field of professional project management and one of the most widely recognized voices in the practice of program and project management. Long retired, Alan is still accepting some of the most challenging research and writing assignments; he is a frequent contributor to the PM World Journal. See his author profile at end of this article.
MANAGEMENT STAFFING

Allen 1964 identified five components of management leading, as indicated on the right. However, this series follows the break-down of Koontz & O’Donnell 1978. As noted in the Background, the first three components of management leading were discussed in the previous article in this series. This current article now discusses selecting people and developing people, under the broad heading of Staffing. Allen’s definitions of these are:

- **Selecting people**: the work a manager performs to choose people for positions in the organization.

- **Developing people**: the work a manager performs to help people improve their knowledge, attitudes and skills.

MANAGEMENT STAFFING OVERVIEW

The classical/traditional management literature has much to say about people in the general management context. Many of these materials originated in the behavioural science school of management, which started in the 1920s, but whose main contributions appear to date from the 1950s and 1960s, as illustrated in Figure 5-1.

**TRADITIONAL THEORIES – “Classical” or “Functional” schools**

- “SCIENTIFIC MANAGEMENT” (Taylor, d. 1915): Focus on efficient task performance

- BUREAUCRATIC MODEL (Weber, d. 1920): Focus on authority and structure

- **MANAGEMENT PROCESS SCHOOL** (Fayol 1916, Irwick 1930s, Allen 1960s, Koontz & O’Donnell 1970s)
  Espousing universal management principles: Focus on primary management functions – planning, organizing, leading, controlling

CRITICISMS: Rather mechanistic view of human behaviour; “top-down”; “closed-system” assumptions - e.g. little consideration for environment or customers; “principles” too general for practical guidance

**BEHAVIOURAL SCIENCES – Human relations and associated schools**

Focus on people in the organization. Concern with psycho-social issues – i.e. psychological and social aspects, “Industrial social psychology”.

- Pioneered by Elton Mayo’s “Hawthorne Studies” (1920s – 1930s)
- Motivation and satisfaction writers include Maslow 1954 (Hierarchy of needs); McGregor 1960 (Theory X & Theory Y); Herzberg 1966 (Hygiene and Motivational factors).
- Other related topics include group dynamics, “sensitivity training” & “T-groups”; participative management, job enlargement, job enrichment

CRITICISMS: Overemphasis on psycho-social systems; “close-system” viewpoints tend to exclude economic, technical and environmental factors

**TIME LINE**


*Figure 5-1: Early general management theories*
SELECTING PEOPLE

Selecting People: The work a manager performs to choose people for positions in the organization (Allen 1964:287)

Introduction

The general management literature has a great deal to say about selecting people for organizations. Allen outlines a series of processes for selecting people, involving eleven steps. According to Mukhi et al 1988, Werther & Davis 1985 have an eight step process. The differences between these and other lists of processes are not great, and do not warrant particular comment here. The main message in all such recommended selection processes is to be methodical and thorough.

In the project context, it appears to be relatively uncommon for project managers to be able to select the people they want for the project team. More often than not the team members are simply allocated to the project. In such situations, there is a direct operational relationship between the general managers who make such allocations, and the relevant project managers. When this happens, project managers may need to negotiate hard with general management for changes in allocation to get the right mix of skills, experience, and other relevant attributes in the project team.

The normal processes of selecting people in the general management context appear to be equally relevant in the project context. In the project management literature, the PMBOK Guide (PMI 2013) includes a specific process, 9.2 Acquire project team, within knowledge area 9. Project Human Resource Management. The APMBoK (APM 2012) does not appear to have directly tackled selecting people in its latest edition.

The following notes do not attempt to summarise either traditional/classical or project management materials on the subject, but discuss some of the things I found important in an unusually extensive experience in selecting people for, and within, project-based organizations.

“Blame the victim”

Mr Platt is not a man given to confessions of error (Economist, 10/7/93, p.45)

Some managers seem to find it impossible to accept that they are capable of making errors of judgement in selecting people. From this comes the well-known “blame-the-victim” syndrome – i.e. it’s the employee’s fault that the selection hasn’t worked out. It’s difficult to know how to counter this sort of absurdity, and the injustice that ensues.

The rational, fair and enlightened approach is well exampled by Drucker 1970:92, talking about US General George Marshall’s appointment in World War II, as follows:
But Marshall also insisted that to relieve a man from command was less a judgement on the man than on the commander who had appointed him. "The only thing we know is that this spot was the wrong one for the man", he argued. "This does not mean that he is not the ideal man for some other job. Appointing him was my mistake, now it's up to me to find what he can do".

Elsewhere, Drucker 1980:70 says:

To blame a promotion that fails on the promoted person, as is usually done, is no more rational than to blame a capital investment that has gone sour on the money that was put into it.

Both appointer and appointee generally do the best they can to make a good selection decision. But, because people are fallible, there are always likely to be poor selections.

The sensible thing to do is to face up to this situation, and do what Drucker suggests – check out how people are actually working out in practice. There certainly seems to be a good case to have a formal probation or threshold period, with predetermined review periods for the specific purpose of discussing

- how the employee is performing in the company’s eyes
- how the company is performing in the employee’s eyes
- whether a resultant “goodness of fit” is developing satisfactorily or not
- if not, what to do about it

The most positive approach to this is to give selected people ample opportunities to demonstrate their strengths. This will now be discussed.

**Finding and building on individuals’ strengths**

Here I draw on my experience with the Lend Lease subsidiary, Civil & Civic, particularly in the 1960s, when it grew at a real rate of 25% per annum (compounding). Consequently we had to recruit a large number of new people over that period, and indeed subsequently. By an accident of history, I found myself on the selection committees of most staff recruitment efforts throughout Australia in that period, acting as a sort of quality control person, to ensure a relatively uniform standard of recruitment. I then had the somewhat humbling experience of seeing how some hundreds of people I had had a hand in recruiting worked out in practice. This experience led me to believe that there were substantial deficiencies with conventional approaches to people selection.

I think the main problem is that selectors are too often trying to suit the applicant to the job, when it makes much more sense to try and suit the job to the applicant. This implies that we need to find out what the applicant's particular strengths are, but this is easier said than done. The particular individual strength I am interested in is what the applicant does really distinctively well, and seemingly as naturally as breathing.
I believe everyone has such a personally distinctive skill. But very few people know what their own distinctive skill is, simply because it comes so naturally to them. Those close to them are sometimes able to pin-point it, but not always.

It is certainly most difficult to discover what this natural skill is at interview. When asked about their strengths, applicants typically describe situations where they overcame problems in areas where they were not naturally strong! Whilst this may be useful information, it does not reveal what the individual's natural strength is. So, one is most unlikely to be able to find this out at interview. What then can be done?

The best place to identify the individual's natural strength is on the job. One does the best one can in selecting individuals, but then looks to the job situation to help locate and utilise strengths. But there needs to be an appropriate organisational environment to facilitate this process. I have described what we did in Lend Lease in a section on self-motivation in the previous article in this series.

The importance of cultural fit

Peters & Waterman 1982:265 expressed the importance of cultural fit thus:

Another striking aspect of the orientation of the excellent companies is the way they socialise incoming managers. The first element, of course, is recruiting. The screening is intense. Many of the companies we talked to are known for bringing potential recruits back seven or eight times for interviews. They want to be sure of the people they hire, and they are also saying to would-be recruits, “Get to know our company. Decide for yourself whether or not you can be a good fit with our culture”.

In the project context, it may be equally important to assess how a person will fit into the project team, not only in terms of project culture, but also in terms of potential to contribute to the project team.

In Lend Lease we employed quite a few people who were eminently well qualified in all the key criteria, but were never able to fully adjust to the Lend Lease culture, and eventually left the company. Indeed our experience was that it was not so difficult to find adequate numbers of people with the right technical/managerial qualifications for most positions, but that the matching of the individual's personal values with our corporate values was a substantially more difficult task.

Selecting to fit into a team

In the discussion of leadership styles in the previous article in this series, it was seen that managers typically have a bias towards either concern for production (task orientation), or concern for people (relationships orientation).

Hunt 1979:97 did some studies in which he found male managers almost evenly divided in their style bias – 47% were more task oriented, 40% were more relationship oriented, and 13% were equal on both. He went on to say:
The relevance of style is a relevance of balance. Groups or teams in organizations attempt to achieve a state of balance dependent upon the styles and behaviours of the role performers. ....

A group made up of people who are only prepared to play a task oriented role is likely to fail to achieve its ends. A group of people who only wish to play the maintenance of human relations oriented roles may also fail to achieve a result, depending on the task. In organizations, people shift their styles to meet the needs of the situation and to create peaceful co-existence or a balance of power and influence most of the time. In this way, the balance of a team is restored.

A little later (p.101) he spells out the consequences of this for the selection process as follows:

Selection needs to be seen as selection to fit into a team, rather than as a search for yet another remarkable individual.

Hunt’s remarks appear to be equally relevant to project teams.

**A personal note on human resource departments etc in project contexts**

In the whole of my 26 years with Civil & Civic and Lend Lease we did not have a Human Resource department, or an Education/Training department, or an Industrial Relations department, or .............. . You name the typical people-related service departments – we didn’t have them (except for payroll and similar). Yet our company was widely regarded as the most enlightened employer of people, with the best education/training, and by far the best record in industrial relations. Why were we so successful in these areas?

The basic answer is easy. If the manager’s job is not the management of his/ her people, what is it? Individual managers should not, and could not, abrogate this responsibility to a specialist service department. Similar remarks apply to education/training, and, in context, to industrial relations. These matters were the responsibility of every manager. When company-wide initiatives appeared to be appropriate, a project to consider such initiatives would be muted (at any level), discussed, and (if agreed) formalised and implemented, and then disbanded after successful completion. In this way, we did not have departments that felt they had to continue to justify their existence.

As an addendum, I feel bound to express my profound dislike of the term "human resources" as a descriptor for people. I do not regard myself, or any other person, as just another resource, like materials and machines. People are flesh and blood, knowledge and imagination. Only people can make the other, non-human, resources productive. Without people, other resources cannot produce anything. Therefore, to imply that people are "just another resource" is, to me, de-humanising, and ridiculous. I find it even more ridiculous that the financial accounts of organizations show property and machinery as assets, while the people who make them productive are recorded as costs! How absurd!
Summary of selecting people

It was first observed that, all too often, selection of people for projects is done by general managers, rather than the project manager. When this happens, project managers may need to negotiate hard with general management for changes in allocation to get the right mix of skills, experience, and other relevant attributes in the project team.

It was then noted that the normal processes of selecting people in the general management context appear to be equally relevant in the project context.

I then discussed aspects of selecting people which I had found relevant in an unusually extensive experience in selecting people for, and within, project-based organizations. These topics included “Blame the victim”; finding and building on individuals’ strengths; the importance of cultural fit; selecting to fit into a team; and a personal note on HR departments etc in project contexts.

DEVELOPING PEOPLE

Developing People: The work a manager performs to help people improve their knowledge, attitudes, and skills

(Allen 1964:298)

Introduction

Drucker 1977:331 pointed out that developing is not one, but two related tasks.

- *Management development*, whose purpose is the health, survival and growth of the enterprise;
- *Manager development*, whose purpose is the health, growth and achievement of the individual, both as a member of the organization and as a person.

Allen 1964 is clearly concerned with *manager development*, and this will be the focus of much of what follows. However, I will start with a short discussion of *management development*, in Drucker’s sense of the term. The reason for doing so is that it there appear to be strong links between the two. Clearly, *manager development* can be seen as a component of the broader function of organizational *management development*.

In looking at both management development and manager development, it is evident that the extent to which general management approaches are relevant to projects will depend substantially on the nature of the organization, and how it undertakes projects.

At this stage we distinguish between two types of permanent organizations that undertake projects. I follow Cooke-Davies 2002 in describing these as production-based and project-based organizations, and borrow from Archibald et al 2012 (who use different descriptors) in defining them:
• **Production-based organizations** derive most (if not all) of their revenue and/or benefits from producing and selling products and services. They utilize projects to create or improve new products and services, enter new markets, or otherwise improve or change their organizations.

• **Project-based organizations** derive most (if not all) of their revenue and/or other benefits from creating and delivering projects.

My nearly forty years direct work experience in project management was solely in project-based organizations. The way we went about management and manager development processes in Lend Lease, in particular, was quite straightforward. The formal educational components were undertaken as projects, and programs of projects, covering both general management and project management.

However, I am well aware from mature age students (in my next career phase as an academic) that the situation in production-based organizations is very different. Responsibility for *management development*, and probably also *manager development*, would be in the distinctive general management domain.

Many students we had on our project management courses were there because there were no project-related development facilities in their production-based organizations. However, there are doubtless other more enlightened organizations of this type that do provide such facilities.

**MANAGEMENT DEVELOPMENT**

As noted above, the concern of *management development* is the health, survival and growth of the enterprise, rather than the individual per se. Modern writers tend to differentiate between individual development (i.e. *manager development*) on the one hand, and team or “group” development, and organisational development (“OD”), which are in the *management development* domain, as now discussed.

**Team or group development**

This has been an important component of the literature on OD for a long time. As Lippitt 1982:347 said,

> Individuals are being trained as members of a group so that they can learn to function together in their organisational relationship. Although there is some advantage to the individual being trained as an individual, there is greater advantage to the organization in the training of individuals as members of a real group.

I suspect that one of the reasons why there is so much academic concern with team building is that much of the management literature in this country comes from the USA, where the cult of the individual is a good deal stronger than in Australia, and the development of teamwork evidently more difficult. As Renwick 1980 notes:

> They [Australians]….tend to value collective effort highly, more highly than do Americans.
In the project context, it is first noted that the focus of the PMBOK Guide (PMI 2013) and the APMBoK (APM 2012) in relation to management development is on team development/teamwork. There is a certain amount of formalism in the approaches of both that does not sit comfortably with my experience.

As already noted in the section on Management Motivation in the immediately preceding article of this series, on all but very large projects, teamwork tends to happen naturally. Project goals are clear, and are usually demanding, particularly because of time constraints. It is obvious that one must co-operate with other team members if demanding project goals are to be achieved. Other team members will not tolerate lack of co-operation if it affects their tasks (as it normally would), and will soon find ways of dramatically reducing obstruction by offenders, one way or another.

Even amongst very competitive people, the practice of "co-operative competitiveness" (Murphy, 1984) comes naturally on projects. You depend on your team-mates. "Team building training" and the like are not required. It never occurred to us to do such things in Civil & Civic. There was no reason to.

Peters 1993:136 comments that, at McKinsey:

... team-building training wasn't necessary. The task was so daunting that you had to get down to it posthaste, had to depend upon your teammates. Since there was no option, it worked.

Organisation development (OD)

There appears to be no universally accepted definition of organization development. Indeed, OD appears to mean different things to different people.

Lippitt 1982:246 saw OD as ranging

across a spectrum of efforts: at one end is a people approach, with emphasis on human resource development, dealing primarily with individuals and groups; at the other end is a “getting the job done” approach, dealing with an orientation towards improved productivity and “bottom-line” results.

Hunt 1979:193 summarised the situation as follows.

At a practical level, OD relates to changing organizations in a planned way for the better. .... The techniques of the OD practitioner .... include personality, structural, technological, and interpersonal variables. The end result variables of the OD program include both economic measures (productivity, profit, cost efficiency) and human, environmental measures (satisfaction, co-operation, creativity).

My own view of OD is that it is a collection of techniques rather than a theory of change.
In the project context, organization development does not appear to have much relevance, except perhaps for very large long-duration projects.

MANAGER DEVELOPMENT

I was heavily involved in both management and manager development in Lend Lease, in both general management and project management, for a very long time. The following notes reflect some of the things I found most significant in this long tenure.

I will follow Allen’s definition of developing people above, which is concerned with improving people’s attitudes, knowledge and skills, and then add another couple of topics. We will discuss

- Improving attitudes
- Developing knowledge and skills
- Performance appraisal and counseling
- Developing people’s strengths

Improving people’s attitudes

Allen 1964 has little to say about attitude development. Perhaps this is hardly surprising. Personal attitudes reflect the individual personality. However, recognition of individuals’ attitudes, perceptions and the like is important in the manager development context, on two counts.

First, It helps in the process of placing people in positions with which they are temperamentally compatible. In the words of Lippitt 1982:172,

If we can create conditions such that position demands are congruent with personality needs (e.g. the controller is a person with strong needs to keep things neat) then satisfaction is likely to be high.

In similar vein, a person with high needs for security is unlikely to be successful in an entrepreneurial position.

Second, knowledge of people’s attitudes etc is critical to the learning process. It has been convincingly demonstrated (e.g. by Kolb et al 1979; Hunt 1979)

that individuals have markedly different preferences in the way they best learn, and that unless the educational/ learning process is appropriate to the individual’s learning preference, poor (and even negative) learning results ensue.

Individual learning preferences, or learning styles, can be self-determined by a simple self-description test – Kolb’s Learning Style Inventory (Kolb et al 1979:Ch.2).
It happens that the result of this test also help establish some attributes or preferences people are likely to have in managerial situations, which would help in the process of placing people in compatible positions. This is discussed in more detail below.

**In the project context**, the above comments appear to be equally relevant.

**Developing knowledge and skills**

Allen 1964:298 defines knowledge as cognisance of facts, truths and other information, and skill as the ability to put knowledge into practice.

Most management writers on this topic, including Allen, emphasise that the acquisition of knowledge does not automatically lead to more effective action on the job. If Kolb et al 1979 are right, only about a quarter of an average population will be comfortable with traditional knowledge acquisition, and also be strongly predisposed to the practical application of that knowledge. Another quarter will feel comfortable with acquiring knowledge in traditional ways in a classroom, but will be little concerned with the practical application of such knowledge. Traditional knowledge acquisition processes are largely irrelevant to the other half of the population. Their learning comes through more active involvement in concrete situations – e.g. the traditional “learning on the job”.

Knowledge of the preferred learning styles of individuals, and the design of appropriate development devices, will help greatly in effective improvement of individual’s knowledge and skills, with emphasis on the latter.

**In the context of projects**, these comments also appear to be equally relevant.

**Performance appraisal and counselling**

Many classical/traditional management writers were sceptical about conventional approaches to appraisal and counselling. McGregor wrote a highly critical (and acclaimed) article on this as long ago as 1957, in the Harvard Business Review (No.3, pp.89-94). Lippitt 1982:193 noted that

…. there is, in fact, a wide gap between theory and practice. Appraisers are frequently biased and befuddled; the person being judged frequently is confused and resentful. ……

Drucker 1970:85 observed that

Whilst almost every large organization has an appraisal system, few of them actually use it. …. Again and again the appraisal forms remain in the files, and nobody looks at them when a personnel decision has to be made.
Drucker went on to point out that the problem with most appraisals is that they focus on weaknesses. This is because appraisal forms have grown out of the work of clinical psychologists, who are naturally concerned with what is wrong, rather than what is right with the patient. He concludes from this that

.... the many executives who in effect sabotage the appraisals their policy manuals impose on them follow sound instinct. … It is the wrong tool, in the wrong situation, for the wrong purpose.

However, Drucker 1970:88 did advocate some form of appraisal procedure.

Still one needs some form of appraisal procedure - …. Effective executives … usually work out their own radically different form. It starts out with a statement of the major contributions expected from a man in his past and present positions and a record of his performance against these goals. Then it asks four questions:

A. What has he (or she) done well?
B. What, therefore, is he likely to be able to do well?
C. What does he have to learn or to acquire to be able to get the full benefit from his strength?
D. If I had a son or daughter, would I be willing to have him or her work under this person?
   (a) If yes, why?
   (b) If no, why?

So, we return to building on people’s strengths. Before discussing this (again!) there are some comments about appraisal in the project context.

In the project context, a key responsibility of the project manager is to have the right mix of individual and technical strengths at all stages of the project, and to help them maintain focus. Performance assessments on projects should focus first on the project managers, and how well they have used people’s strengths on their projects.

It is normally easy to evaluate this aspect of the project manager’s task. But the ultimate assessment is project success.

For other members of the project team, on all but very large projects, individual performance and contribution are highly visible, and do not need elaborate assessment procedures. Qualitative issues, such as giving help to colleagues, relations with customers and other key stakeholders, and the like, are quite readily recognised. Formal appraisals may have a part to play, but it is hard to know how they could really contribute. Informal counselling is likely to be the most effective tool for the project manager.

Developing people’s strengths

There is much support in the literature against focusing on weaknesses. Peter Drucker is probably the most articulate and convincing advocate of the merits (and common sense) of building on a person’s strengths. He says (Drucker 1970:74),
The idea that there are “well-rounded” people, people who have only strengths and no weaknesses …. is a prescription for mediocrity if not for incompetence. Strong people always have strong weaknesses too. …. And no-one is strong in many areas. …. There is no such thing as a “good man”. Good for what? is the question. 

The question should always be asked

“What are the right job experiences for this person to help strengths develop the fastest and the furthest?”

**In the project context**, I can attest that this is the approach we took in Lend Lease, and that this was a major contributor to Lend Lease’s success.

In line with the observations on selecting and developing people above, it follows that assessments and consequent actions should focus on individuals' strengths, and how to build on them - in short, how to get "extraordinary results with ordinary people”. I tend to get annoyed with people who tell me that so-and-so is weak at this or that. My invariable response is, "Who the hell cares? I am only concerned about what that person is good at, and I will encourage that person to develop that strength further. I can cover his/her so-called weak area with someone else who’s good in that area".

In contrast, many personnel and training people I have come across have tended to focus on so-called weaknesses, and put much effort into trying to "correct" those weaknesses. To me, this is nonsense, and I believe that this is one of the key problems with traditional personnel and training departments. Thank goodness we had no such departments in Civil & Civic in my time with that organization.

**Summary re developing people**

We first distinguished between management development and manager development, the latter being the main focus of this article. It was then noted that the extent to which general management approaches to development are relevant to projects will depend substantially on the nature of the organization. Here we distinguished between production-based and project-based organizations.

We then briefly discussed management development, in the context of organization development (OD), and team or group development. With regard to the latter, it would appear that team development tends to happen rather more naturally on projects than in general management contexts. There are also differences between Australians and Americans regarding teamwork.

Discussions then shifted to the development of individual managers, which included improving people’s attitudes, developing knowledge and skills, performance appraisal and counselling, and developing people’s strengths. In the main, it was concluded that general management practices in these areas are also very relevant to projects and their management.
REFERENCES


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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 150 professional articles and papers. Alan can be contacted at alanailene@bigpond.com.au.

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