

Revisiting models of organisational and project contexts ¹

By Alan Stretton

INTRODUCTION

I have written many articles in this journal on broader contexts relevant to projects and their management. One of the more prominent was a series of seven articles entitled “Series on project contexts”, from Stretton 2019e to 2019k. Later articles on broader contexts include Stretton 2020k, and I have also written many other articles on particular types of contexts.

This article revisits and updates the above series on project contexts, as summarised in Stretton 2019k. This update re-formats some of the original contexts into more of an hierarchical mode, as well as upgrading and/or modifying some of the component details. The resulting model will hopefully be seen as a useful vehicle for helping view the contexts of organisations, and of their projects, with more holistic perspectives.

CHANGES IN CONTEXTS, CONTENT, AND FORMAT FROM STRETTON 2019k

Figures 1 and 2 are summarised outlines of the project-related contexts discussed in Stretton 2019k, and of the contexts to be discussed in more detail in this article.

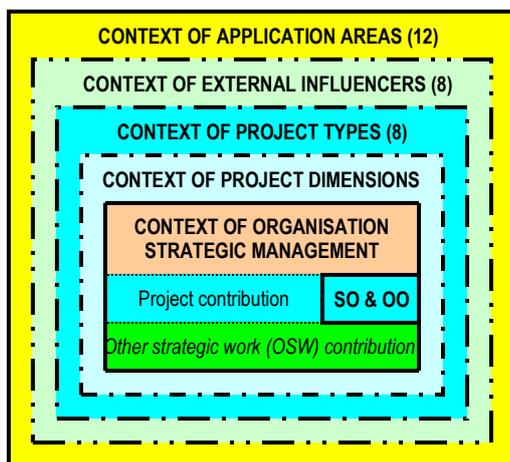


Figure 1. Earlier outline project context model (from Stretton 2019k, Figure 1)

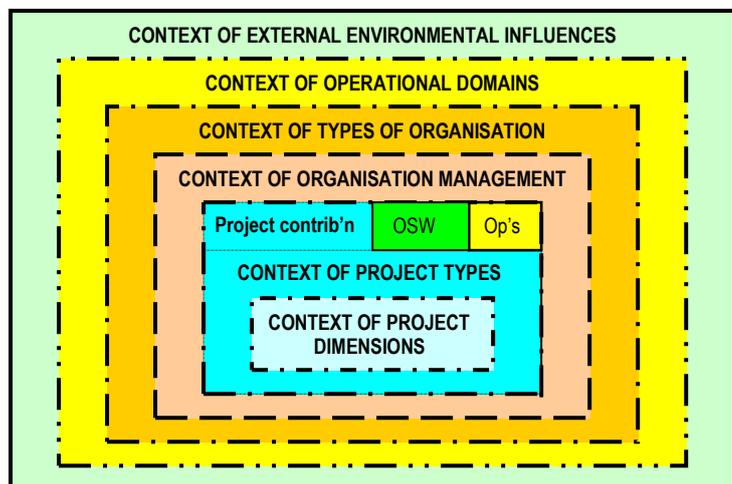


Figure 2. Outline of current project context model to be discussed in more detail in this article

It can be seen that there are several changes, particularly in the format and order of presentation of the various contexts, the addition of a *Context of types of organisation*,

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and changes in the titles of some of the contexts. As we will see later, there have also been changes to the detailed components of some of the contexts.

CONTEXT OF ORGANISATIONAL (STRATEGIC & OPERATIONS) MANAGEMENT

The context of *organisational strategic management* has been expanded to include *operations management* (Op's in Figure 2), and the project and *other strategic works* (OSW) contributions reconfigured as shown in more detail in Figure 3.



Figure 3. Expanded headings for the organisational mgt. context

The earlier *SO* (*Supplier Organisation*) and *OO* (*Owner Organisation*) categories have been removed, and re-assigned to the new *Context of types of organisation*.

Both the *Context of project types* and the *Context of project dimensions* have now been placed within the domain of the *Context of organisational management*, simply because the latter is the domain in which projects are actually undertaken.

We start with adding the context of project types.

CONTEXT OF PROJECT TYPES WITHIN ORGANISATIONAL MANAGEMENT

The *Context of project types* is directly linked with the *Project/program contribution* section of the *Context of organisational strategic & operation management*, as shown.

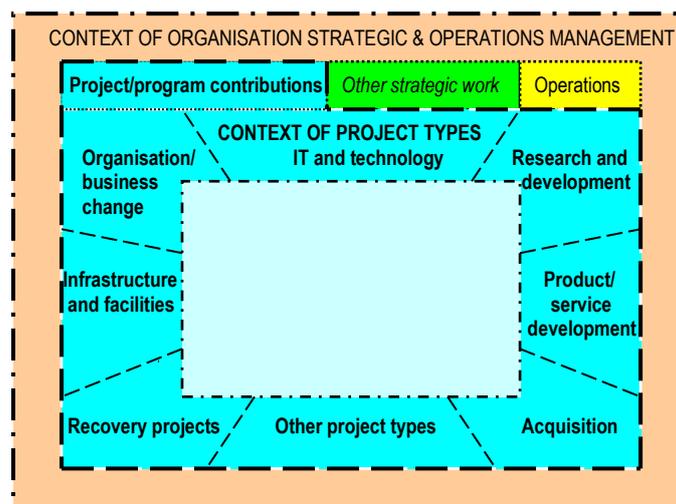


Figure 4. Illustrating the Context of project types within the Context of organisational management

The types of projects in Figure 4 are unchanged from those developed in Stretton 2019i. These, of course, are simply representative examples – *Other project types*

could cover a multitude of further types. Also, the actual types of projects will naturally depend on the type of organisation, its operational domains, and external environmental influences.

The initial reason for including this context of project types is that different types of projects require different project management techniques if they are to be managed most effectively. Stretton 2019i quoted from Archibald & Prado 2014 as follows.

...for a project to be successful, different types of project work associated with different types of project need to be managed differently. An experienced engineering-procurement-construction (EPC) project manager will often not be very successful managing a typical information technology (IT) software project. The project management methods and tools that are successful for an EPC facilities project are not very useful for an IT or new product development project.

In that article I went on to discuss my own experiences in managing several different types of projects, which most certainly demanded differing sets of management skills. I also noted that the importance of different management requirements for different types of projects is often not acknowledged in the literature, although this is changing as we get more and more project-type-specific materials in the literature.

Stretton 2019i also discussed a more generalised classification of project types, which included mega project and programs. The latter was discussed mainly in the context of the Prieto 2015 book *“Theory of management of large complex projects”*, and some of his many contributions on the latter topic in articles in this journal.

CONTEXT OF PROJECT NTCP DIMENSIONS

This context is based on the diamond approach developed by Shenhar and various colleagues over some three decades. The four dimensions, which comprise the axes of this diamond as illustrated in Figure 5 are Novelty, Technology, Complexity, Pace.

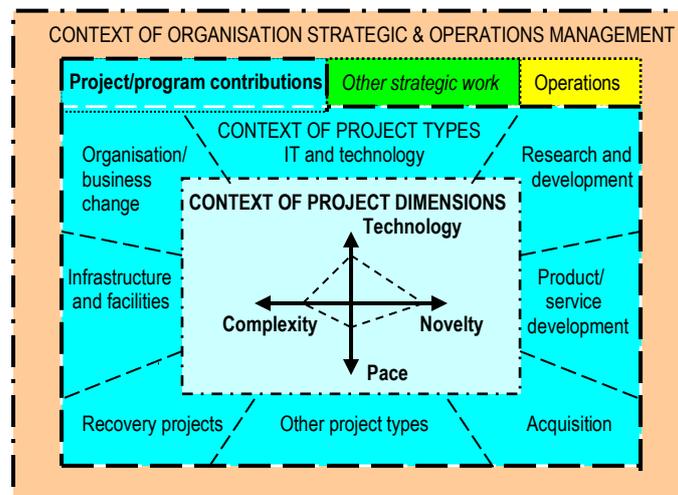


Figure 5: Adding the Novelty, Technology, Complexity and Pace dimensions to the context model

In Shenhar et al 2016 these four project dimensions are described as follows.

- **NOVELTY: Market Innovation** – How new is the product to the market, users, & customers
- **TECHNOLOGY: Technological Innovation** – How much new technology is used
- **COMPLEXITY: Level of System Innovation** – Represented by the complexity of the product or the organization
- **PACE: Urgency of the Innovation** – How critical is your time frame.

Each of these four dimensions of the basic NTCP model also has its own four levels, as shown in Figure 6.

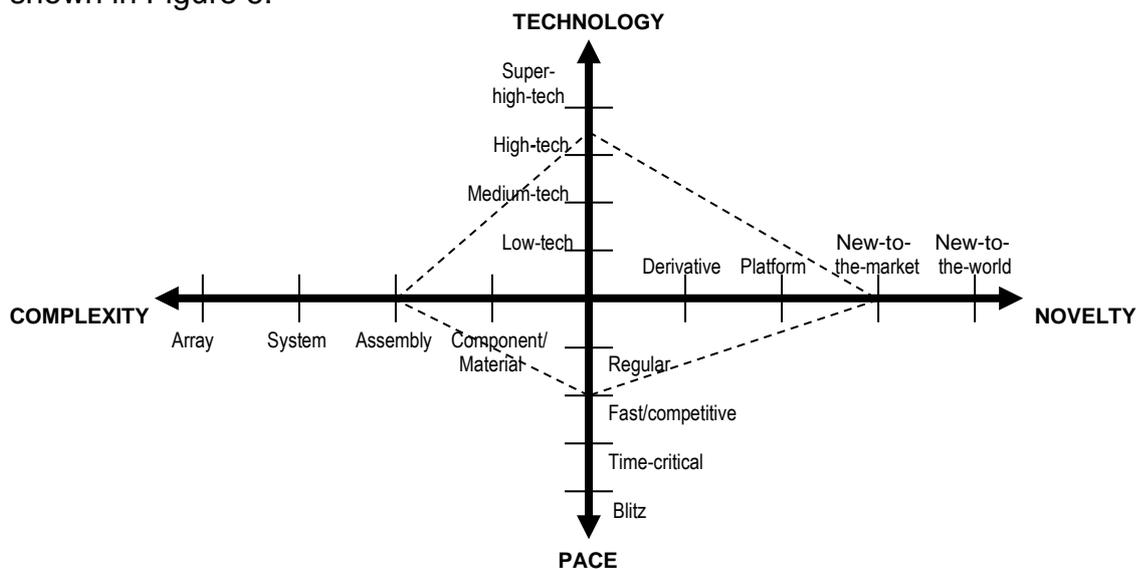


Figure 6: The NTCP model, adapted from Shenhar et al 2016, showing levels on each dimension

In this summary I will not define the more obscure descriptors of certain of these levels, which I have already done in Stretton 2019h – but it can be seen that the levels denote increasing levels of uncertainty for Novelty and Technology, and straight increases of Complexity and Pace in those dimensions.

However, the primary reason for adding the context of project dimensions is that Shenhar and colleagues have set out very substantial guidelines for managing projects at each of the various levels of each of their four project dimensions, notably in Shenhar & Dvir 2007. For example, one group of four tables in the Appendices shows each level of each of the four dimensions, and indicates how these can affect the traditional processes of project management characterised by the (then) nine major PMBOK Guide knowledge areas (PMI 2004). Additionally, each of the four NTCP dimensions also has a separate table which summarises the impact of its various levels on other project management processes that are particularly relevant to that individual dimension. These are described in more detail in Stretton 2019h – and, of course, in Shenhar & Dvir's book. These are particularly valuable resources, and the main reason for my including this specific project context in this assemblage of such contexts.

CONTEXT OF TYPES OF ORGANISATION

As indicated in Figure 1, I did not include the context of types of organisations in my earlier series on project contexts, although it was mentioned in Stretton 2019k.

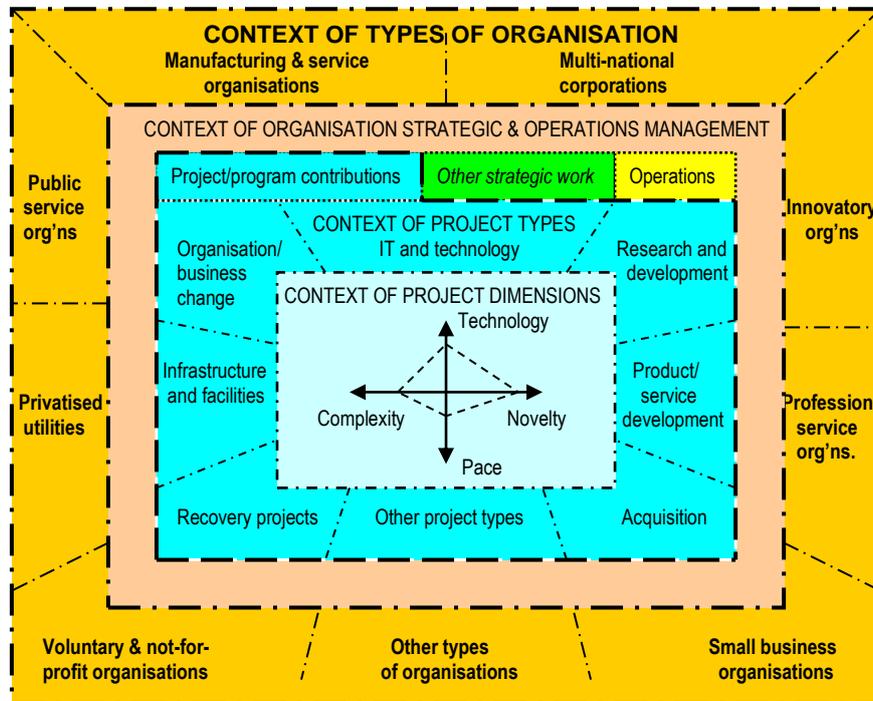


Figure 7. Adding Context of types of organisation to the assemblage of project contexts

One of the reasons for now including the *Context of types of organisations* in this new assemblage is to provide an appropriately located domain to re-assign the contexts of Supplier organisations (SOs) and Owner organisations (OOs), which I had originally located in the *Organisational strategic management* domain, as shown in Figure 1.

The exemplified types of organisations come from a non-project source, namely Johnson & Scholes 1999, plus a provision for other types of organisations. If we look at the detailed types, it is clear that *Professional services organisations* are dominantly in the SO category. Most of the others could be either SO or OO, with the latter probably the more dominant overall.

In the earlier series on project contexts, I discussed many of the differences in project management between those operating in SOs and those in OOs. I also discussed SOs which provide extended strategy-related services to clients, and those that provide extended EPC (Engineering, Procurement, Construction) services, particularly in the major projects and mega-projects domains. On the OO side, I also discussed the role of project management in longer-term asset-based OOs.

Overall, and to state the obvious, different types of organisations will undertake different types of projects, which have different ramifications for project management, as discussed earlier in the more specifically project-related contexts.

CONTEXT OF OPERATIONAL DOMAINS

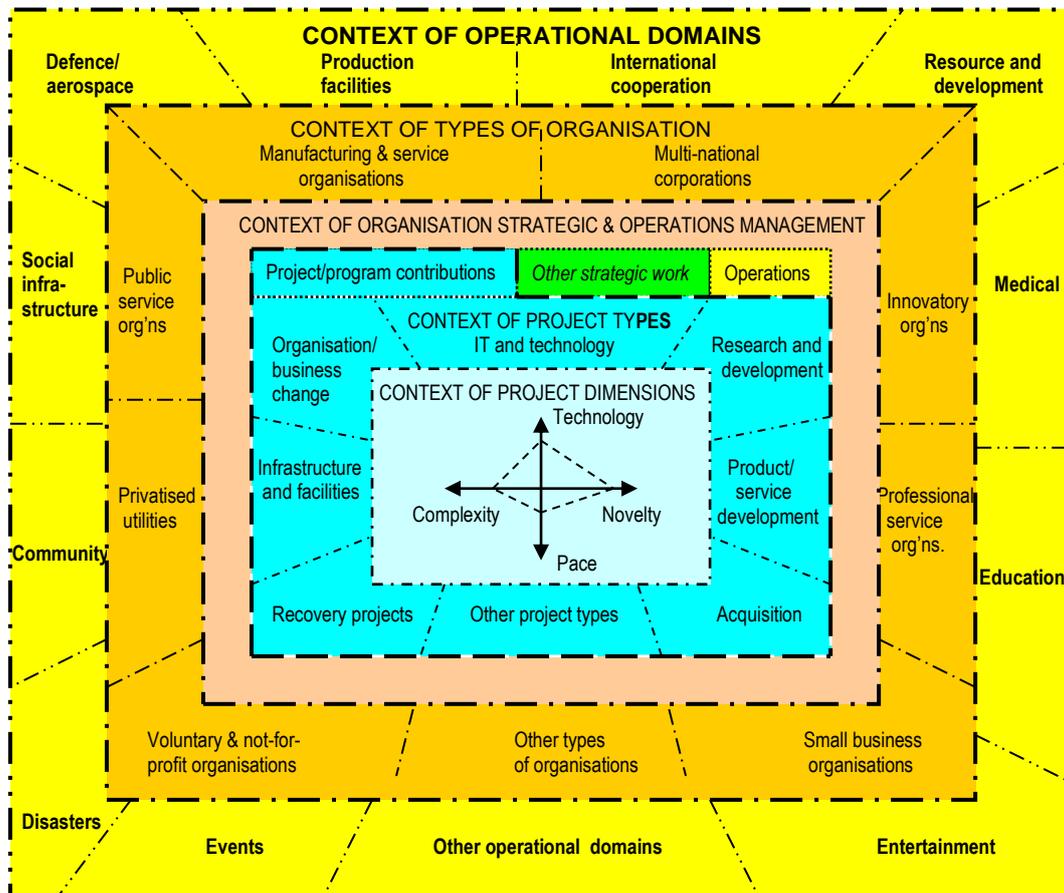


Figure 8. Adding Context of operational domains to the assemblage of project contexts

The title of this context has been changed from *Context of project application areas* to *Context of operating domains*, mainly to emphasise that, at this stage, the key unit under consideration is now the organisation, rather than its projects per se.

As noted in Stretton 2020k, it is obviously important to project success to have a very good knowledge of how things are done in the operational domain in which you are undertaking your project, irrespective of its type. Shenhar & Dvir 2007:198 note that,

One of the major contextual factors affecting project management is the specific industry in which the project is being run. It is no secret that different industries have different ways of managing projects. The differences can be found in, among other things, processes, tools, techniques, standards, applications, and, of course, the technical differences and the specific technologies.

We already have industry-specific materials on many aspects of managing programs/projects in many different operational sectors. For example, from just two sources in the literature, Stretton 2020k listed such materials from seventeen different operational sectors. Indeed, this appears to be an opportunity area waiting to be exploited.

With so many industry-specific project management materials already available, it would seem to be relatively straight-forward to collect, amalgamate and augment these into useful guidelines for project management in a wide range of specific industries.

CONTEXT OF EXTERNAL ENVIRONMENTAL INFLUENCES

This context is now positioned external to all the other contexts, to reflect its coverage of all external influences beyond those of individual operational domains – which has been reinforced by the addition of *environmental* in the title. The original *influencers* has been changed to *influences*, to reflect the fact that projects and organisations can influence environmental entities, as well as being influenced by them.

The components of the context of external environmental influences will be the mainstream headings developed in a previous article of this series (Stretton 2022h), (with *Other external influences* added), as shown in Figure 9.

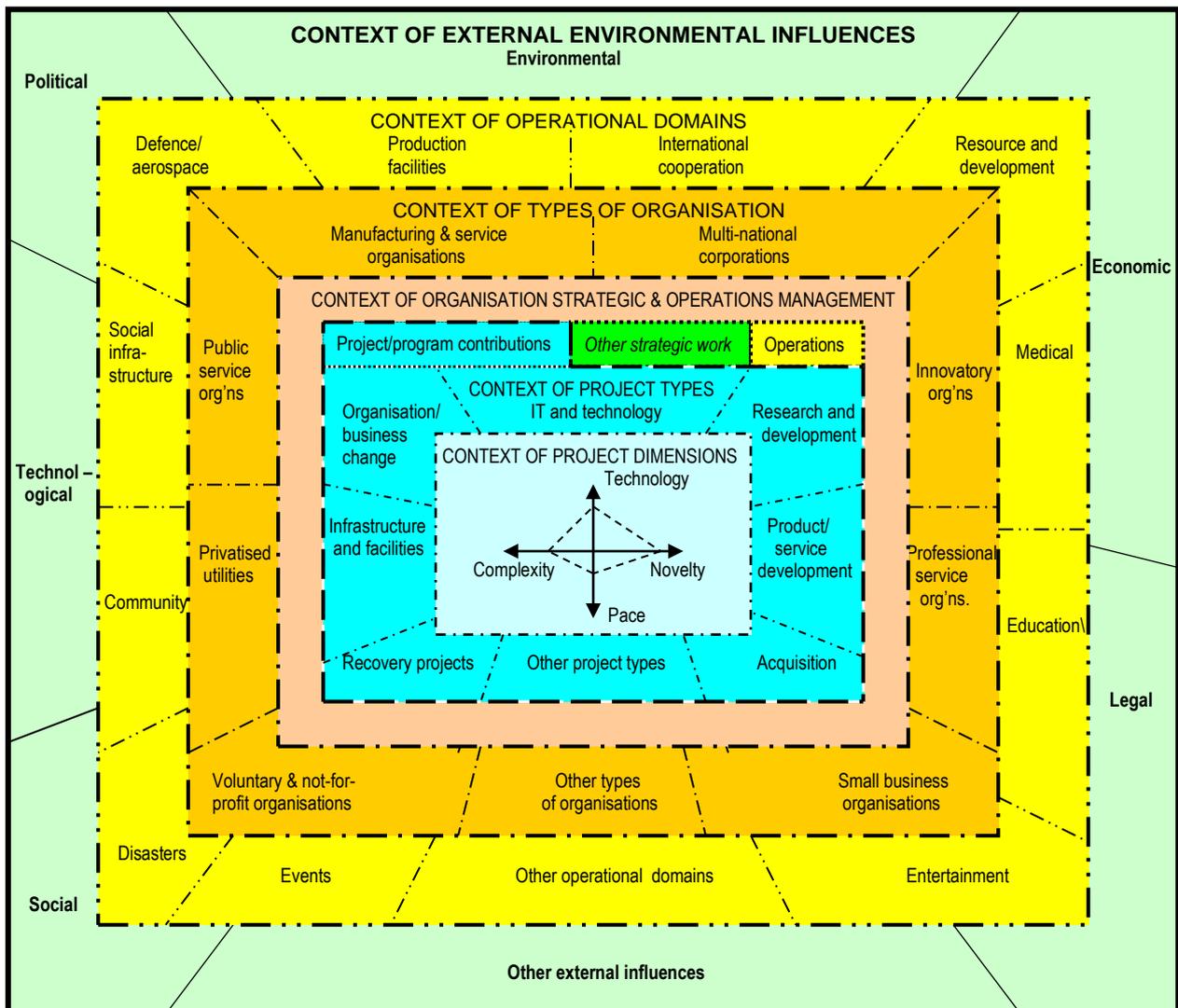


Figure 9. Adding Context of external environmental influences to assemblage of project contexts

SUMMARY/DISCUSSION

This article has revisited and updated representations of various types of contexts relevant to projects and their organisations developed in an earlier series in this journal, as summarised in Stretton 2019k.

The assemblage in this article has amended some of the descriptors and content from Stretton 2019k, added another type of context, and changed the order in which some of the contexts are presented, in order to provide a more hierarchical representation of these contexts. Figure 9 above effectively summarises this revised assemblage of project contexts, so that there seems to be little point in reiterating discussions relating to this summarising figure.

Why was this contextual model updated? Mainly because holistic perspectives on the wider contexts in which projects are undertaken appear to have become significantly more relevant in the rapidly changing VUCA and Covid-19 environments of recent years. Even before the Covid-19 pandemic, the project management literature was increasingly concerned with the VUCA (Volatile, Uncertain, Complex, Ambiguous) attributes of the environments in which organisations operate, and their projects undertaken. These VUCA attributes have evidently been substantially exacerbated in the Covid-19 era. Therefore there appears to be an even greater need to continually monitor our environmental contexts, to help us make good decisions regarding the most appropriate actions to take in responding to relevant changes in those contexts.

It is hoped that this revised contextual model might be found useful in facilitating such monitoring and decision making.

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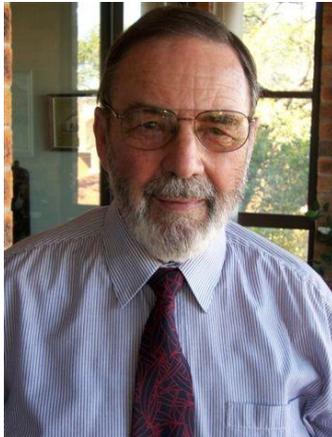
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Alan Stretton is one of the pioneers of modern project management. He is currently a member of the Faculty Corps for the University of Management & Technology (UMT), USA. In 2006 he retired from a position as Adjunct Professor of Project Management 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 240 professional articles and papers. Alan can be contacted at alanilene@bigpond.com.au.

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