

## Series on Project Contexts

### 1. Representations of a variety of contexts which impact on the management of projects<sup>1</sup>

By Alan Stretton

#### INTRODUCTION

Much of the literature on project management, including bodies of knowledge, competency standards and the like, tends to treat projects as if they exist independently from their context. For example, Thiry 2011 quotes from Crawford & Cooke-Davies 2010, as follows.

“In the search to define a distinct body of knowledge and set of practices that could be claimed as “project management”, the focus has been on the project. It is largely isolated from its context and stripped to its bare essentials to enable the development of generic standards” (p.2)

However, projects do not happen in a vacuum. When you manage projects, there are invariably many contextual issues that also have to be managed as part of the overall project management process, irrespective of the type of project. These contextual issues are often very important indeed, but generally do not get the attention they deserve in the project management (PM) literature.

|           | ICB [IPMA] | PMBOK [PMI] |
|-----------|------------|-------------|
| Context   | 15.6%      | 1.9%        |
| Behaviour | 27.2%      | 1.1%        |
| Technical | 39.5%      | 61.6%       |
| Other     | 17.7%      | 34.1%       |

This paucity of attention to the context of projects is illustrated in the table on the left from White 2018, which compares IPMA’s (International Project Management Association) ICB (Competence Baseline) with the PMBOK Guide, in respect of four broad groups of contents. As can be seen, the percentage for *context* in the PMBOK Guide in particular is very low.

In one sense this paucity of attention is hardly surprising. The possible permutations and combinations of relevant contextual issues are practically endless. But, I believe we need to get a better handle on project contexts than we currently have, and that is the concern of this series of seven articles. In this initial article I will identify and discuss six key contexts, which will be represented in associated pictorial formats.

We will start with the context of project contributions to organisational strategic management, and then go on to look at some differences for project management undertaken in supplier organisation (SO) and owner organisation (OO) contexts.

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We will then move on from organisational contexts to look at two which are related to projects themselves, namely the contexts of project dimensions, and project types. Finally, we look at two external contexts, which are those of external influencers on projects, and of application areas in which projects are undertaken.

## THE CONTEXT OF ORGANISATIONAL STRATEGIC MANAGEMENT

### Project contributions to organisational strategic management

*An emerging conviction among those professionals who do research on, publish, and practice project management is the belief that projects are building blocks in the design and execution of organisational strategies. (Cleland & Ireland 2002:106)*

Many other authors also relate projects directly with organisational strategies, including Shehar & Dvir 2007:23, who say, very directly, “Most projects are part of the strategic management of their organizations,…”

As far as I can ascertain, virtually all projects, no matter how originated, are, or soon become, direct components of organisational strategic plans and their execution. In looking at contexts of projects, it therefore seems reasonable to first consider projects in the context of the organisational strategies of which they are a part.

### An organisational strategic management framework

It should first be acknowledged that there is no universally agreed set of processes covering organisational strategic management – which is hardly surprising when organisations are so diverse. In recent times, particularly in a series starting with Stretton 2018d, I have been developing a series of processes for organisational strategy planning and execution with are as near as I have been able to get to a generic sequence of stages applicable to most organisations most of the time. My latest version of an organisational strategic management framework is shown in the top section of Figure 1.

|  |  |   |   |   |
|--|--|---|---|---|
| 1. Establish strategic objectives  | 2. Develop strategic options, evaluate, choose the best  | 3. Augment/consolidate strategic initiative(s)  | 4. Execute strategic initiatives  | 5. Achieve strategic objectives.                |
| Establish/ re-establish the desired deliberate/emergent strategic outcomes and benefits    | Develop alternative strategic initiatives to achieve strategic outcomes / benefits. Evaluate alternatives. Choose best option(s) | Augment and elaborate chosen strategic option(s). Confirm feasibilities Prioritise and consolidate into strategic portfolio(s). | Execute projects/ programs and other strategic work to facilitate achievement of strategic objectives | Achieve strategic outcomes and realise benefits |
| <b>PROJECT COMPONENT OF STRATEGIC INITIATIVES</b><br><br><b>[PLC – PROJECT LIFE-CYCLE]</b> | Alternative initiatives include potential projects. The best choice originates the on-going projects                             | Augment/consolidate basic parameters of component projects. Prioritise projects   | Design, plan and execute projects/programs  |   |
|  | <b>Project Incubation Phase</b>  | <b>Project Feasibility and Definition Phases</b>  | <b>Project/program Design and Execution Phases</b>  |   |

**Figure 1: An organisational strategic management framework, with project contributions**

### Adding the project components of strategic initiatives to this framework

As is the case with the organisational strategic management framework, there is no universally agreed set of processes for depicting a project life-cycle (or the *product development sequence*, as Morris 2013:150 describes it). The representation of the project life-cycle in Figure 1 is rather broad-brush, but hopefully will cover most types of projects.

In particular, this representation makes specific provision for iterations during the project life-cycle, which is a part of so many types of projects, but is not so often represented as such.

### Adding other strategic work components to this framework

I have made the point in many previous articles that strategic initiatives comprise both projects and what I have described as *other strategic work*. I discussed the latter in the organisational strategic context in Stretton 2019a, and represented its inclusion in that context, along with projects, as shown in Figure 2 (all abbreviated).

|  |   |  |  |   |
|--|---|--|--|---|
| <b>OTHER STRATEGIC WORK CONTRIBUTION</b> | <i>Other strategic work</i> incubation stage            | <i>Other strategic work</i> feasibility and definition | <i>Other strategic work</i> design and execution | <i>Other strategic work</i> in transition stage |
| 1. Establish strategic objectives        | 2. Develop strategic options, evaluate, choose the best | 3. Augment/consolidate strategic initiative(s)         | 4. Execute strategic initiatives                 | 5. Achieve strategic objectives.                |
| <b>PROJECT(S) CONTRIBUTION (PLC)</b>     | Project Incubation Phase                                | Project Feasibility and Definition Phases              | Project/program Design and Execution Phases      |   |

Figure 2: Abbreviated strategic management framework, PLC, & “Other strategic work” stages

### The context of organisational strategic management

I now re-cast Figure 2 into a more compact format, under the summary heading “Context of organisational strategic management”, with other strategic work now at the bottom of the diagram, in order to restore the context heading to the top.

| <b>CONTEXT OF ORGANISATIONAL STRATEGIC MANAGEMENT</b> |   |  |  |   |
|---|---|--|--|---|
| 1. Establish strategic objectives                     | 2. Develop strategic options, evaluate, choose the best | 3. Consolidate strategic initiative(s)                 | 4. Execute strategic initiatives                 | 5. Achieve strategic objectives.          |
| <b>PROJECT(S) CONTRIBUTION (PLC)</b>                  | Project Incubation Phase                                | Project Feasibility and Definition Phases              | Project Design and Execution Phases              |   |
| <b>OTHER STRATEGIC WORK</b>                           | <i>Other strategic work</i> incubation stage            | <i>Other strategic work</i> feasibility and definition | <i>Other strategic work</i> design and execution | <i>Other strategic work</i> in transition |

Figure 3: The context of organisational strategic management

We now move on to look at what might be called a sub-context of the above, but which I will discuss as a project context in its own right.

## THE CONTEXT OF PROJECTS BY SUPPLIER OR OWNER ORGANISATIONS

### Some definitions/descriptors of the two types of organisations – SOs and OOs

There are two quite different groups of organizations that plan and execute projects. Taggart 2015 describes them as *Supplier Organizations (SOs)* and *Owner Organizations (OOs)*. For many years (from Stretton 2015b) I have usually followed Cooke-Davies 2002 in describing these as project-based and production-based organizations respectively, and borrowed from Archibald et al 2012 (who use different descriptors) in defining them, as follows:

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

As is indicated in the above heading, and the definitions, I propose to mainly use Taggart’s descriptors in the following, chiefly because of their useful abbreviations

### Lehmann’s list of differences for project management between SOs and OOs

Lehmann 2016 uses the descriptor “*customer projects*” to describe projects delivered by an SO to an OO, and “*internal projects*” to describe projects run internally by an OO. I adapted his table of differences as shown below in Figure 4 (originally in Stretton 2017e).

|  | COMMON DIFFERENCES                                |                                       |
|--|---|---------------------------------------|
|  | Customer projects (SOs)                           | Internal projects (OOs)               |
| Are ..... for the performing organization                                | Profit centres                                    | Cost centres                          |
| Project selection is mostly made as .....                                | Bid / no-bid decision                             | Internal decision                     |
| Project work for the requester is based on .....                         | Legally binding contracts                         | Internal agreements                   |
| Team’s familiarity with the target environment at project start is ..... | Low   | High                                  |
| Project managers are mostly .....  | Rather powerful                                   | Rather weak                           |
| Obtaining resources is mostly .....                                      | Rather easy                                       | Rather difficult                      |
| Management attention for the project is mostly .....                     | Rather high                                       | Rather low                            |
| Project managers must consider .....                                     | The interests of both the customer and contractor | The interests of the own organization |
| Staffing and procurement mostly managed by .....                         | Project mgt. team                                 | Functional units                      |
| Reputation inside the own organization is mostly .....                   | Rather high                                       | Rather low                            |

**Figure 4: Adapted from Lehmann 2016, Figure 5 – Differences in the environment and the requirements that project managers are facing**

**Comment, & other differences for project management between SOs and OOs**

It can be seen from the above that Supplier Organisations (project-based) and Owner Organisations (production-based) provide some very different contexts for projects and their management. In Stretton 2017e I identified four types of project management services which an SO can provide to an OO, and commented on how these might modify Lehman’s “differences” in respect of project selection, legally binding contracts, and considering the interests of both customer and contractor.

I also added a couple of my own observations about differences between project management in SOs and OOs. One was that a wider range of project life-cycle processes often needs to be covered in the SO context. Another was that the extent of the project manager’s responsibility and authority in the SO context is generally far greater than in OOs. In relation to the latter, I also noted that, in Civil & Civic, our perspective was that if you were managing a project, you were managing a business, and that that was the project manager’s job, with appropriate support.

Additionally, it was noted that the project management literature tends to focus on internal OO projects. However, Taggart 2015 suggests that there appear to be more project people working in SOs than OOs, and that bodies of knowledge and the like should give more guidelines that are particular to project management in SOs – a viewpoint I tend to support.

**Adding the context of SOs & OOs to the organisational strategic mgt. context**

Initially I had some difficulty finding a pictorial way to add what I am now calling the context of SOs & OOs to the organisational strategic management context. However, hopefully Figure 5 indicates how this context relates to the project component of the strategic initiatives, and thence to the broader context of organisational strategic management. I have also shown the Figure 5 diagram in skeleton format in Figure 6, as this is the main format I will be using later when adding materials relating to other contexts.

| CONTEXT OF ORGANISATIONAL STRATEGIC MANAGEMENT |   |   |   |                                    |
|--|---|---|---|------------------------------------|
| 1. Establish strategic objectives              | 2. Develop strategic options, evaluate, choose the best | 3. Consolidate strategic initiative(s)          | 4. Execute strategic initiatives          | 5. Achieve strategic objectives.   |
| <b>PROJECT(S) CONTRIBUTION (PLC)</b>           | Project Incubation Phase                                | Project Feasibility and Definition Phases       | Project Design and Execution Phases       | <b>CONTEXT OF SOs &amp; OOs</b>    |
| <b>OTHER STRATEGIC WORK</b>                    | Other strategic work incubation stage                   | Other strategic work feasibility and definition | Other strategic work design and execution | Other strategic work in transition |

**Figure 5: Adding the context of SOs & OOs to the organisational strategic mgt. context**

| CONTEXT OF ORGANISATION STRATEGIC MANAGEMENT |                    |
|--|--------------------|
| Project contribution                         | <b>SO &amp; OO</b> |
| Other strategic work contribution            |                    |

**Figure 6. A skeleton format of Figure 5**

We now move on from project contexts which relate to the organisations within which, or for which, they are undertaken, to contexts which relate to the nature of projects themselves. We start with the context of project dimensions.

## THE CONTEXT OF PROJECT DIMENSIONS

### The NTCP model of Shenhar and associates

I first discussed the NTCP model of Shenhar and associates in Stretton 2016h, and later in Stretton 2017d and 2017g. NTCP is shorthand for what Shenhar describes as the four project “dimensions” of Novelty, Technology, Complexity, and Pace. In Shenhar et al 2016 these are described as follows.

- Novelty:** Market Innovation – how new is the product for the market, users, and 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.

In the last version of the NTCP model that I have (Shenhar et al 2016), each of the four dimensions has four levels, as indicated in Figure 6.

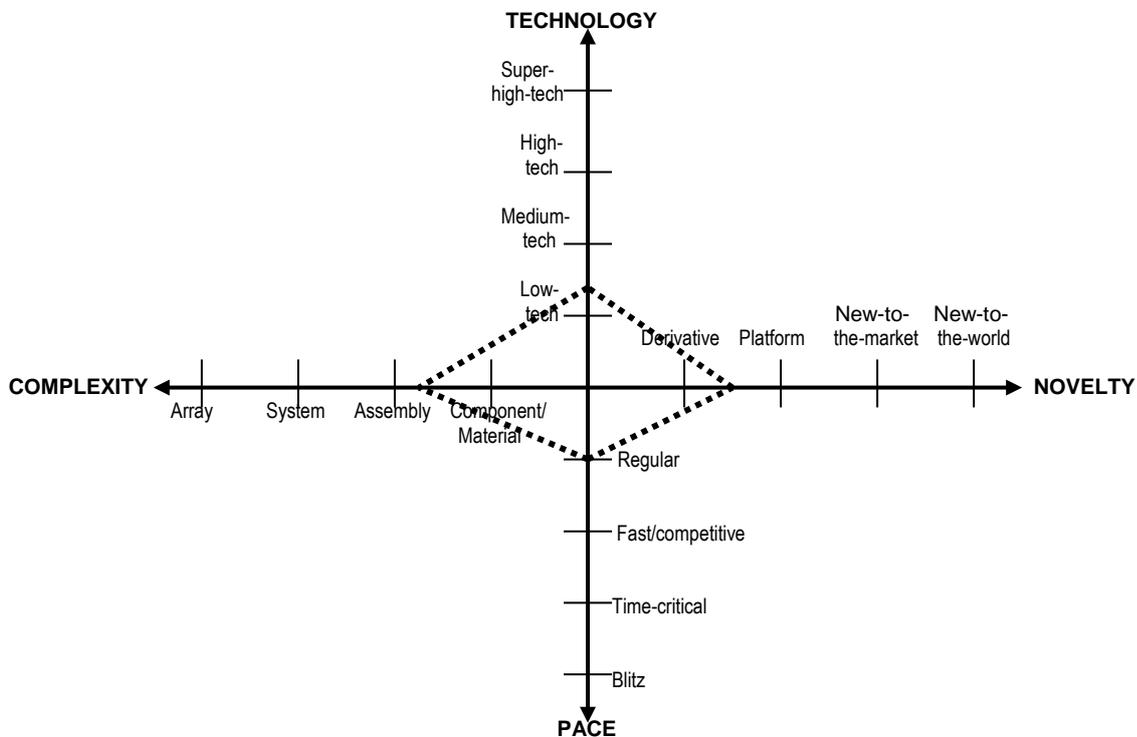


Figure 7: The NTCP model, adapted from Shenhar et al 2016

The descriptors of the four levels of uncertainty for the Technology and Pace dimensions are broadly self-explanatory.

With the Novelty dimension, the descriptor *Derivative* denotes improvement in an existing product, and *Platform* a new generation on an existing product line (the emphasis here being on market uncertainty, evidently in a production-based organisational context).

For the Complexity dimension, the descriptors of each level are as follows.

- *Component/Material*: The product is a discrete component within a larger product, or a material
- *Assembly*: Subsystem performing a single function (e.g. CD player, cordless phone)
- *System*: Collection of subsystems, multiple functions (e.g. aircraft, car, computer)
- *Array*: Widely dispersed collection of systems with a common mission (e.g. city transit system, air traffic control, Internet)

The heavily dotted diamond in Figure 7 reflects the main theme of Shenhar & Dvir 2007, who use “a diamond-shaped framework to help managers distinguish among projects according to [the] four dimensions”. They go on to say (p.13),

If you visit each base [dimension] during project planning in a methodical way, you will be able to consider the uniqueness of your project on each dimension and select the right managerial style for this uniqueness.

The selection of the right management approach for each dimension is at the heart of their approach, and they have developed many guidelines on appropriate management approaches for each level of each dimension, as now outlined.

**Guidelines for managing non-traditional dimensions of projects**

Shenhar & Dvir 2007 has two major groups of tables which discuss the impact of each of the various levels of each of their *dimensions* on rather a wide range of project management characteristics. 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 knowledge areas. Figure 8 represents the format of these four tables.

| DIMENSIONS & Levels<br>PMBOK Knowledge Areas | NOVELTY              | TECHNOLOGY         | COMPLEXITY           | PACE               |
|--|----------------------|--------------------|----------------------|--------------------|
|  | Levels: 1; 2; 3; [4] | Levels: 1; 2; 3; 4 | Levels: [1]; 2; 3; 4 | Levels: 1; 2; 3; 4 |
| Integration                                  |                      |                    |                      |                    |
| Scope  |                      |                    |                      |                    |
| Time   |                      |                    |                      |                    |
| Cost   |                      |                    |                      |                    |
| Quality                                      |                      |                    |                      |                    |
| Human resources                              |                      |                    |                      |                    |

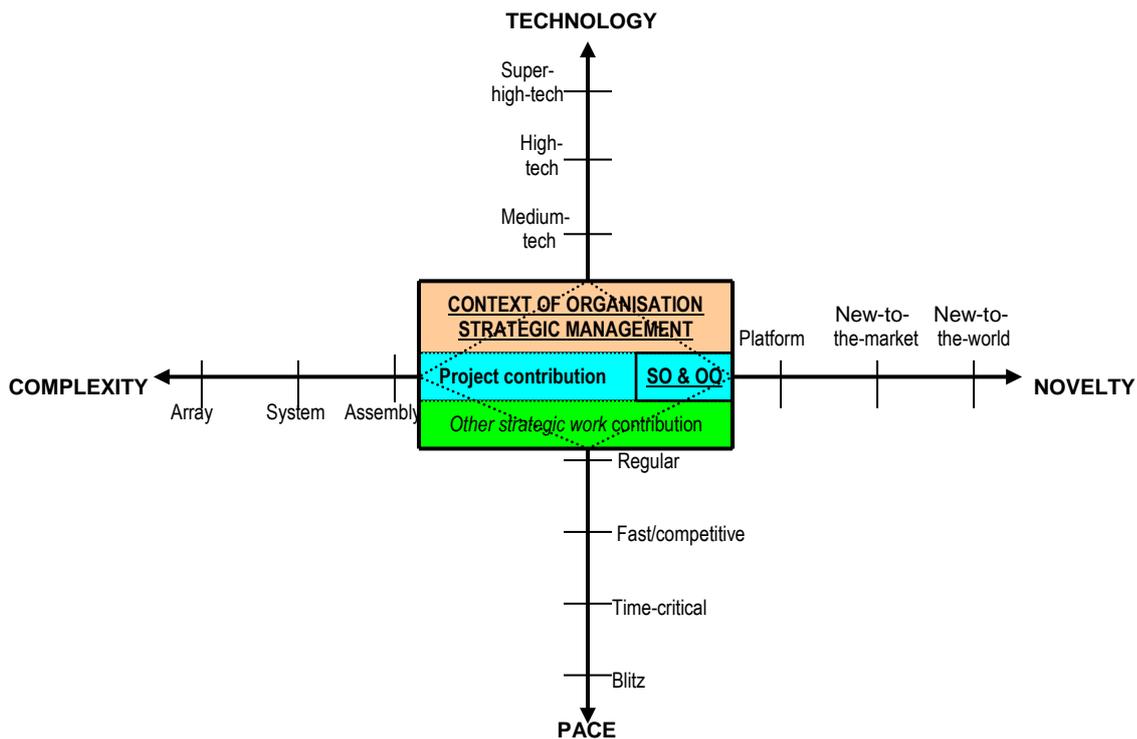
**Figure 8: Format of Shenhar & Dvir 2007 tables in Appendices 4, 5B, 6B, and 7**

These tables add well over one hundred additional guidelines for managing non-traditional dimensions of projects. [The items in square bracket are not covered in Shenhar & Dvir 2007, but I understand that it is planned to cover them in the next edition of their book.]

In addition, 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. So, overall we have even more substantial guidelines for managing non-traditional project dimensions in Shenhar & Dvir.

**Combining the contexts of organisational strategic management and SOs & OOs with the context of project dimensions**

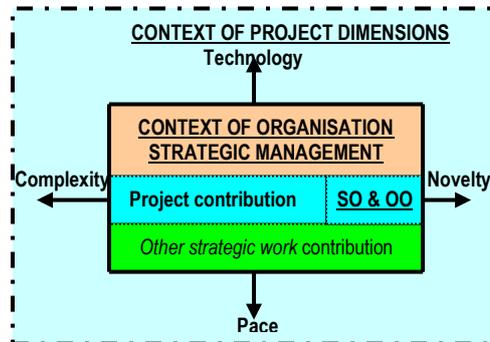
In Figure 9 I have superimposed the skeleton format of the previous two contexts from Figure 6 onto the in the NTCP model of Figure 7, in the approximate position of its diamond, which is meant to represent a typically conventional project.



**Figure 9: Superimposing the combined organisational strategic and the SO & OO contexts in the approximate position of the diamond on the NTCP model of Figure 7**

This notional pictorial representation of the combination of the three project contexts discussed to date is now compacted into the abbreviated formal shown in Figure 10 below, to facilitate pictorial additions of other contexts.

**Compacting the three combined contexts to date into an abbreviated format**



**Figure 10: Compacting the three combined contexts to date into an abbreviated format**

We now move on to discuss an associated context, namely that of project types.

**THE CONTEXT OF PROJECT TYPES**

**A listing of types of programs/projects from P2M**

Different authors in the project management literature tend to have rather different ways of classifying project types. I am going to start with a listing I made in Stretton 2014g, which was actually concerned with categorising programs, and which drew on the most complete groupings of types of programs/projects which appeared to be available at the time, namely from Japan’s P2M (PMAJ 2008).

|  |
|--|
| <p><b>ORGANIZATION/BUSINESS CHANGE</b><br/>                 Corporate M&amp;A; corporate alliance; restructuring; spin-off of a division; shutdown of factories/branches; reorganization / privatization of government ministries<br/> <b>Commercialization of new business model:</b> Door-to-door delivery service; online sale of books; Internet search service; various online free services<br/> <b>Capability development:</b> International partnership; founding of college; in-house education system</p> <p><b>ENGINEERING/CONSTRUCTION</b><br/>                 Social infrastructure construction (airport &amp; railway etc); large-scale commercial facilities; urban area redevelopment<br/> <b>Plant and factory construction:</b> Plant construction (petrochemical, steel, semi-conductor, atomic power plant; thermal electric power plant</p> <p><b>ICT SYSTEMS</b><br/>                 Bank account system; production control system; earth simulator; communications / broadcasting system</p> <p><b>PRODUCT/SERVICE DEVELOPMENT</b><br/>                 High-tech industrial products; drug development; new variety of seeds, package software</p> <p><b>MARKETING/SERVICE (including networking)</b><br/>                 Affiliated dealership for luxury cars; franchise networks; broadband; theme park</p> <p><b>RESEARCH &amp; DEVELOPMENT</b><br/>                 Space development; nuclear fusion research; human genome research; high-tech military equipment development; global environmental research</p> |
|--|

**Figure 11: Program/project types, from Stretton 2014g, adapted from PMAJ 2008**

The two listings from P2M from which Figure 11 was derived were actually mixtures of program/project application areas and types of programs/projects. I separated these into two listings, one for types of programs/projects, as shown above, and the other for various application areas, which will be shown later in Figure 16.

**More recent listings, and an amalgamated and supplemented listing**

More recently Young & Sexton 2018 presented a survey of project management in Australia, dated October 2018, to the AIPM 2018 National Conference in Sydney. They listed five project types delivered, broadly in order of descending order of magnitude as indicated in the relevant text box in Figure 12 below.

I also draw on a presentation by White 2018 at that conference, in which he commented on the low success rates for certain project types, as also shown in Figure 12. Although this article is not directly focused on project success rates, I thought that these were interesting enough to be worth included here.

In the *Amalgamated and supplemented listing* on the right I have added *Recovery projects* (related to disasters, which have been receiving increased discussion in the literature in more recent times – e.g. Arroyo & Grisham 2016, Crawford et al 2013); and *Other project types*, for obvious reasons.

| STRETTON 2014g<br>Adapted from PMAJ 2008 | YOUNG & SEXTON 2018<br>(Plus Recovery) | BUT THE SUCCESS RATE IS STILL<br>TOO LOW (White 2018)   | AN AMALGAMATED AND<br>SUPPLEMENTED LISTING |
|--|--|---|--|
| Engineering/construction                 | Infrastructure and facilities          | Most large capital projects fail to live up to expectations<br>70% of new manufacturing plants are closed in their first decade | Infrastructure and facilities              |
| Organization/business change             | Business improvement                   |   | Organization/business change               |
| ICT systems                              | IT and technology                      | 66% of IT projects deliver no benefits whatsoever   | IT and technology                          |
| Product/service development              | New product development                | Majority of efforts to enter new markets abandoned in a few years   | Product/service development                |
| Research & development                   |  |   | Research & development                     |
|  | Acquisition                            | 75% of mergers and acquisitions never pay off   | Acquisition                                |
|  |  |   | Recovery projects                          |
| [Marketing/service]                      |  |   | Other types of projects                    |

**Figure 12: An amalgamated and supplemented listing of types of projects**

This does not claim to be a complete listing of types of projects, but a reasonably representative one for the purposes of this article.

### Adding the context of project types to the previous contexts

In Figure 13 I have arrayed the eight types of projects from Figure 12 around the amalgamation of previous contexts shown in Figure 10.

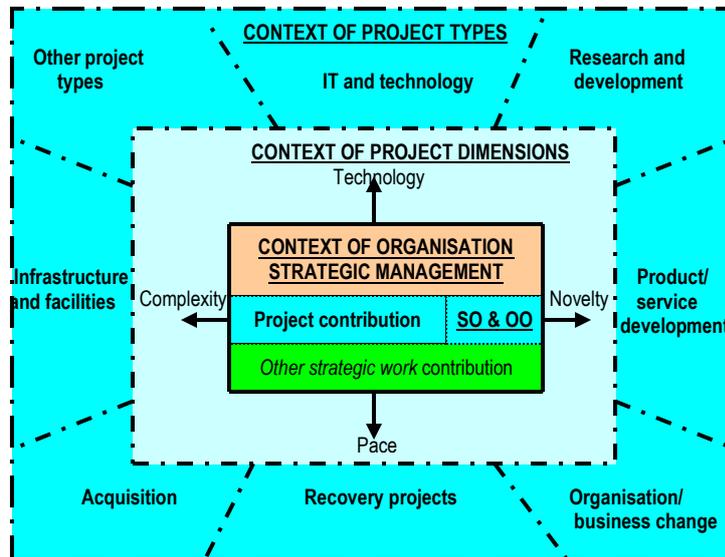


Figure 13: Adding the context of project types to the previous contexts

This kind of contextual representation is meant to be illustrative, rather than showing direct connections with previous dimensions. However some of the project types are located in positions which broadly correspond with their equivalent project dimensions. Such correspondence is not wholly unexpected. However, no particular significance should be placed on the location of non-corresponding elements.

### THE CONTEXT OF EXTERNAL INFLUENCERS

#### Types of external influencers

The following table lists potential external stakeholders, derived from Stretton 2018j.

| EXTERNAL INFLUENCERS   |  |  |  |
|--|--|--|--|
| <p><b>Political/Regulatory Actors</b></p> <ul style="list-style-type: none"> <li>• Governments</li> <li>• Politicians</li> <li>• Lobbyists</li> <li>• NGOs</li> <li>• Regulatory bodies</li> <li>• International institutions</li> <li>• External auditors</li> </ul> <p><b>Industry Insiders/Outsiders</b></p> <ul style="list-style-type: none"> <li>• Competitors</li> <li>• Complementors</li> </ul> | <p><b>Technological Actors</b></p> <ul style="list-style-type: none"> <li>• Patent offices</li> <li>• Universities</li> <li>• Research institutes</li> <li>• Standardisation bodies</li> </ul> <p><b>Socio-Cultural Actors</b></p> <ul style="list-style-type: none"> <li>• Media</li> <li>• Communities</li> <li>• Opinion leaders</li> <li>• Religious organisations</li> <li>• Environmentalists</li> </ul> | <p><b>Economic Actors</b></p> <ul style="list-style-type: none"> <li>• Tax authorities</li> <li>• Central banks</li> <li>• Employers federations</li> <li>• Unions</li> <li>• Stock exchanges</li> </ul> <p><b>Parasitic Participants</b></p> <ul style="list-style-type: none"> <li>• Opportunists</li> <li>• Activists</li> <li>• Causes</li> <li>• Intervenor groups</li> </ul> | <p><b>External champions</b></p> <ul style="list-style-type: none"> <li>• Entrepreneurs</li> <li>• Developers</li> <li>• Visionaries</li> <li>• Investors                             <ul style="list-style-type: none"> <li>○ Funders</li> <li>○ Sponsors</li> <li>○ Shareholders</li> </ul> </li> </ul> <p><b>Purchasers</b></p> <ul style="list-style-type: none"> <li>• Owners/users</li> <li>• Customers</li> </ul> |

Figure 14: A listing of potential external influencers

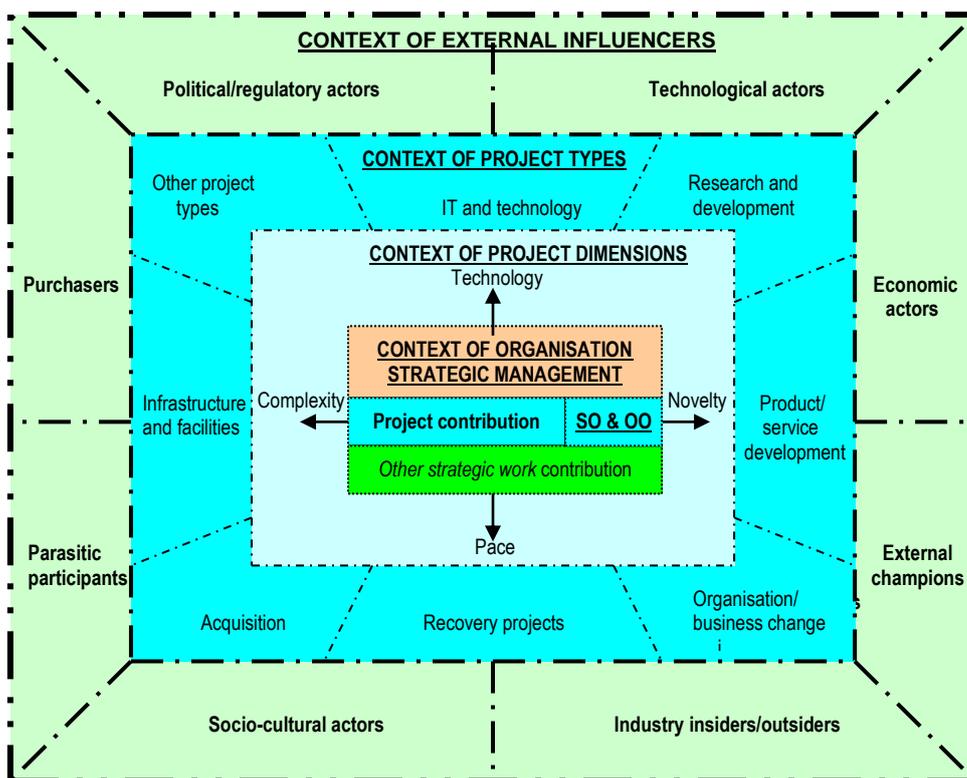
In Stretton 2018j I discussed a group of project stakeholders that Pirrozi 2017 described as influencers. In Figure 14 I have expanded on these to include other external stakeholders who can also influence the project.

The importance of external influencers on projects – particularly potentially adversarial influencers who may not have been initially identified – is widely acknowledged.

The above listing is rather a generalised one, and does not take account of particular influences which apply to only a few projects of a particular type – e.g. adverse geophysical conditions. However, hopefully Figure 14 may be useful as a basic generalised checklist.

**Adding the context of external influencers to the previous contexts**

Figure 15 below adds the context of external influencers to the previous contexts.



**Figure 15: Adding the context of external influencers to previous contexts**

As noted above in relation to Figure 13, this kind of contextual representation is meant to be illustrative, and is not intended to imply direct connections between external influencers and earlier contextual components.

## THE CONTEXT OF APPLICATION AREAS

### Types of application areas

Prevailing conditions and/or practices in particular application areas rather obviously impact on projects. There are many listings of application areas for programs and projects, but the most detailed such listing I have come across derives from Japan's P2M (PMAJ 2008).

As noted earlier, I separated two mixed listings from P2M into two new lists – i.e. types of programs/ projects, as shown in Figure 11, and various application areas, as shown in Figure 16 below.

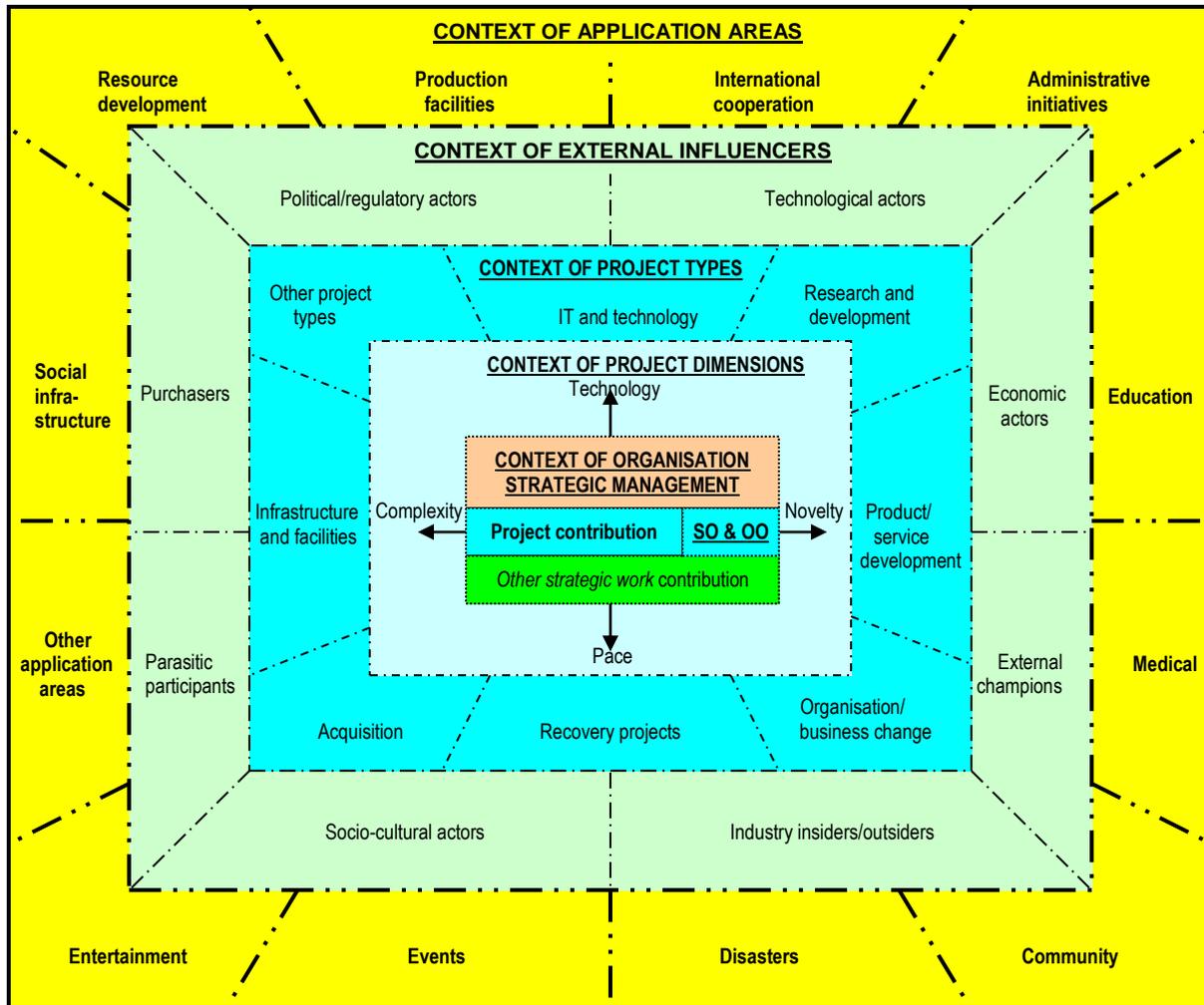
|   |
|---|
| <p><b>SOCIAL INFRASTRUCTURE</b><br/>National traffic &amp; transportation systems; Lifeline (electricity, water, gas, info, telecommunications) systems;<br/>National security and defence facilities; Urban development; Regional development; Private sector buildings;<br/>Environmental preservation systems</p> <p><b>RESOURCE DEVELOPMENT</b><br/>Development of petroleum, natural gas &amp; power resources; Oil refining, petrochemical, chemical, metal refining;<br/>Energy conservation; Power plants and storage and delivery systems.</p> <p><b>PRODUCTION FACILITIES</b><br/>Various production plants and facilities; Logistics systems; O&amp;M; Innovation of production systems (automation,<br/>AI, virtual factories).</p> <p><b>INTERNATIONAL COOPERATION PROJECTS</b><br/>Official development aid (ODA) planning and management; Technology transfer; Fostering of human resources;<br/>Enhancement of organizations; Economic &amp; social development through international consortium.</p> <p><b>ADMINISTRATIVE INITIATIVES</b><br/>Government agencies and municipalities; Policy, development strategies and industrial strategies.</p> <p><b>EDUCATION</b><br/>University reform; Education reform.</p> <p><b>MEDICAL</b><br/>Medical and hospital systems; Hospital reform.</p> <p><b>COMMUNITY</b><br/>Various events; Life support projects; Operation of volunteer bodies; Regional development; Security systems.</p> <p><b>EVENTS</b><br/>Olympic games; Soccer world cup; National sports festival; World exposition.</p> <p><b>ENTERTAINMENT</b><br/>Film making; TV drama.</p> |
|---|

**Figure 16: Program/project application areas, from Stretton 2014g, adapted from PMAJ 2008**

Again, I add a disclaimer that the above does not claim to be a comprehensive list of all possible application areas, but as a reasonably representative one.

Indeed, it will be noted that I have added a *Disaster* application area (as foreshadowed earlier) to the components of Figure 17 below, plus an *Other application areas* component.

**Adding the context of application areas to previous contexts**



**Figure 17: Adding the context of application areas to previous contexts**

Earlier disclaimers about connections between components in different contextual zones also apply here.

Figure 17 completes this listing and grouping of various contexts that appear to be particularly relevant to projects and their management. I will be discussing another context in the final article of the series which did not fit comfortably into the above groupings – and there may well be other contexts which are broadly relevant to most projects, and/or to some particular projects.

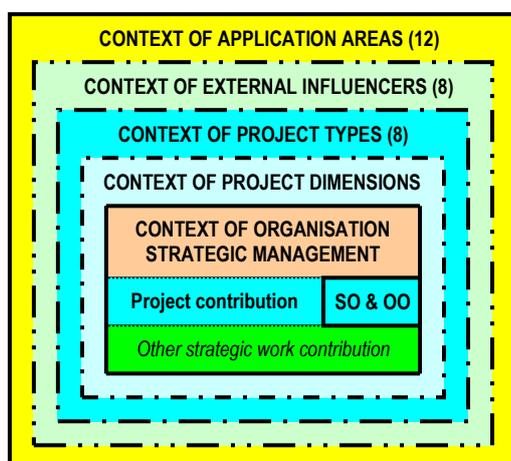
We have identified six major context groups, and many components of some of these groups, particularly the last four. There appears to be more than enough information to determine the combination of contexts that apply to any individual project, which hopefully might help in making appropriate choices about who and how to manage them.

## CONCLUDING

In this first article of a series of seven, six groups of contexts have been identified, most of which have many more specific components, some of which are represented in Figure 17. These groups are:

- The context of organisational strategic management
- The context of projects by supplier or owner organisations (SOs & OOs)
- The context of project dimensions (4 dimensions, + 4 levels in each dimension)
- The context of project types (8 groups, over 30 more specific types listed)
- The context of external influencers (8 groups, 36 potential external stakeholders)
- The context of application areas (12 areas, over 30 more specific areas listed)

As suggested in the Introduction, and as can be seen with the above numbers of more specific components of most of the contexts, the possible permutations and combinations of contextual issues are practically endless. However, I hope that the materials in this article may help some in examining the combination of contexts which are most relevant to their particular projects, and in helping them make good decisions about how to go about managing them effectively, and about who should be involved, and in what capacities.



**Figure 18: Outline project context model**

I will be looking further into each of these six contexts in the following articles of this series. We will also identify at least one further context, plus a contextual extension to the organisational strategy management context.

The following articles will be in the sequence in which the contexts have been developed in this article. I have compacted Figure 17 into the skeleton format shown as Figure 18 to the left, and will be using this outline project context model as a kind of road map in the introduction to each of these six contexts.

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## 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 200 professional articles and papers. Alan can be contacted at [alanailene@bigpond.com.au](mailto:alanailene@bigpond.com.au).

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