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Ministry of Defence

Through-Life Management

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Ministry of Defence

Through-Life Management

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executive summary

"Historically, the functions of requirement definition, procurement management and through-life support have been organisationally separated……………which makes it difficult to get the right balance between risk, cost, performance and through-life support."

The Ministry of Defence's Strategic Defence Review 1998

1 The Strategic Defence Review launched what have become known as the Smart Acquisition reforms, aimed at faster, cheaper and better acquisition and support of equipment. At the heart of Smart Acquisition is a change to integrated management of the delivery of all aspects of capability, from identification of the need for the capability to its disposal. This approach is known as Through-Life Management.

2 Through-Life Management of the delivery of military capability is complex. It involves a major change in culture for the Ministry of Defence (the Department) and those doing business with it, encompassing changes in processes, systems and relationships. New tools and information sources, new mechanisms for engaging and changing the behaviour of the defence acquisition community and new ways to measure progress and demonstrate achievements are all essential to successful Through-Life Management.

3 This report examines whether Through-Life Management is leading to effective delivery of UK military capability. Our methodology is detailed in Appendix 1. We have found that Through-Life Management has yet to become fully embedded in the Department and to yield widespread benefits in terms of demonstrable improvements in military capability.

4 Through-Life Management is a key element of Smart Acquisition but not all aspects of the change it entails have been fully developed and managed coherently (Part 1). There has been continuing support for Through-Life Management from senior management, but this has not always been consolidated into a clearly visible strategy across the Department and the definition and benefits of the change are not yet clear to some members of the acquisition community. A plan is now in place for executing the change to Through-Life Management and has the potential to provide a coherent framework for managing the change effort.

5 The enablers of Through-Life Management are not yet fully in place (Part 2). Progress in setting in place tools and information sources to support Through-Life Management has not always been as quick as the Department would have liked and more remains to be done. Some mechanisms for engaging the defence acquisition community and promoting Through-Life Management behaviour are not yet fully effective, and measurement of progress and success has been patchy and is still developing.

6 We have recommended actions the Department can take to help drive through the change to Through-Life Management (Part 3).

Through-Life Management as a change

7 The change to Through-Life Management has proved to be a greater challenge than originally anticipated and the Department is taking steps to improve its approach to implementing the change. Through-Life Management has been progressed alongside other major and resource intensive changes being introduced across the Department and hinges on the Department's success in developing other related areas of its business, such as how it manages requirements, technology, suppliers and risks. The Department has given priority to other changes, for example rapidly and successfully introducing Integrated Project Teams. In mid-2002, Through-Life Management was identified as a corporate change programme in its own right. Pending consideration of its linkages with other corporate change programmes, the Department's Change Delivery Group, responsible for overseeing corporate change programmes, has yet to fully examine and prioritise the Through-Life Management initiative. Some aspects of the Department's management of the change could be improved in line with good practice.

Some members of the defence acquisition community are not yet clear about the definition and benefits of Through-Life Management

8 The Department has stated the importance of Through-Life Management in its plans and guidance, through presentations by management and in the media. This has developed understanding across parts of the defence acquisition community. However, our fieldwork showed that some members of the defence acquisition community were still unclear about both the definition of Through-Life Management and the benefits it aims to achieve.

There has been continuing support for Through-Life Management from senior management

9 A senior management group provides high-level direction for the implementation of Smart Acquisition, including Through-Life Management. This group has championed specific actions but how these have linked together to form a consolidated strategy for taking forward Through-Life Management has not always been clear. Also, the group does not include representatives from all parts of the acquisition community, notably the Second Customer[1], because the Department considers that the numbers involved would make the group unwieldy and reduce its effectiveness.

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1 *The military end-user of the equipment responsible for in-service aspects of the programme.*

A plan is in place for executing the change to Through-Life Management and has the potential to provide a coherent framework for managing the change effort

10 Initially, the Department sought to introduce Through-Life Management as a series of individual initiatives. In March 2001, it recognised that the change effort was not progressing as quickly as required. The Procurement Development Group developed a plan for managing the change and has been using it to take action to engage with stakeholders to execute and embed Through-Life Management.

11 With some further development, the Procurement Development Group plan could fully reflect good practice and form a coherent framework for managing all aspects of the change effort. It gives a summary of the resources devoted to the change effort but this is not comprehensive and the resources identified are not managed separately. The plan summarises the Through-Life Management objectives and targets set for individual initiatives but these do not cover all parts of the acquisition community. Senior leadership can thus only monitor progress on individual initiatives and in individual parts of the acquisition community. The plan recognises the challenges these issues pose.

12 Given the Department's organisational structure, the Procurement Development Group, which maintains the plan, does not have the authority to implement it across all parts of the defence acquisition community. Implementation of the change effort is overseen by a Stakeholder Group, which operates through consensus.

Key enablers of Through-Life Management

There has been progress in introducing management tools and information sources to support Through-Life Management but this has not always been as quick as the Department would have liked and more remains to be done

13 Through-Life Management Plans[2] are produced by Integrated Project Teams[3] drawing on information from other relevant members of the defence acquisition community. They form the main mechanism for facilitating Through-Life decision-making and planning. These plans offer longer term programme benefits in terms of better outcomes, which may accrue after the tenure of teams currently managing programmes, and also more immediate and direct benefits for current teams in terms of facilitating easier management of programmes.

14 Initially, Through-Life Management Plans focused on equipment issues but, in December 2002, the focus moved to encompass all aspects of military capability. At present, there is no comprehensive picture of the extent to which Through-Life Management Plans cover projects across the Department. From the data that is currently available, it is apparent that some projects do not yet have Through-Life Management Plans and the majority of Integrated Project Team Leaders surveyed did not believe their plans were effective at facilitating Through-Life decisions on their project or programme. We also found that not all relevant parts of the defence acquisition community contribute to Through-Life Management Plans or have ready access to them.

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2   *Defined by the Department as a plan which "takes a project through its life, across the acquisition cycle, meeting customer needs and providing visibility to all stakeholders of the Through-Life planning process".*

3   *The Integrated Project Team is the body responsible for managing a project from concept to disposal. The Smart Acquisition Integrated Project Team is characterised by its "cradle to grave" responsibility, the inclusion of all the skills necessary to manage a project, and its effective and empowered leader.*

15   Making effective Through-Life decisions is crucially dependent on the availability of robust Whole-Life Cost data. Establishing robust data is a complex task and initially progress was slow, reflecting the strain that the introduction of Resource Accounting and Budgeting placed on the Department's finance staff. In April 2001, the Department established a Whole-Life Costing Project Team, which has accelerated progress. As robust Whole-Life Cost data becomes more widely available the proportion of Through-Life Management Plans which include some cost information is increasing.

16   The Department's organisational structure means that Integrated Project Team Leaders are accountable for the performance of their projects, and in many cases also for spending, to both the Chief of Defence Procurement and the Chief of Defence Logistics. As projects mature towards the support phase, the organisation hosting the Integrated Project Team may change from the Defence Procurement Agency to the Defence Logistics Organisation and this can result in physical re-location of the existing Integrated Project Team or transfer of management of the project to another Integrated Project Team. There are risks to continuity and effective and timely decision-making. The challenge posed by this transfer has been made more complex by the lack of corporate management information to help plan Team or project transfers and by the variability of forward transition planning by individual projects. The Department is currently examining ways to alleviate these problems.

17   The Department has recognised that successful Through-Life Management requires the Defence Procurement Agency and the Defence Logistics Organisation to operate together seamlessly. In May 2001, it launched an initiative to improve how the two organisations operate together. While much effort has been expended and some improvements have been made, the underlying problems with the interface between the two organisations are complex and remain to be fully resolved. Notably, seamless operation is still hampered by incompatibilities between the information technology and financial reporting systems used by the two. The Department is addressing these issues through the work of the joint Defence Procurement Agency - Defence Logistics Organisation Financial Management Development Programme in the case of financial reporting, and the Defence Communications Services Agency with regard to information technology systems.

Some mechanisms for engaging the defence acquisition community and promoting Through-Life Management behaviour are not yet fully effective

18 Capability Working Groups bring together members of the defence acquisition community and are a key forum for discussing Through-Life issues. The scope for Capability Working Group activity is very wide and practices vary. Our fieldwork showed that these Groups are effective in drawing together expertise within the Department but that issues such as protection of intellectual property rights mean that using them to engage with industry has been less successful. The Department is reviewing the effectiveness of Capability Working Groups, including ways to overcome commercial confidentiality issues.

19 Customer Supplier Agreements set out working relationships between Integrated Project Teams and their customers. They focus primarily on in-year activities and outputs rather than Through-Life issues and were perceived by the majority of Integrated Project Team Leaders we surveyed as only marginally effective in facilitating Through-Life Management. The Department is working to make in-service Customer Supplier Agreements more effective as accountability documents.

The measurement of progress and success has been patchy and is still developing

20 The Department measures progress primarily by assessing how well developed the Through-Life Management planning process is in individual projects or Integrated Project Teams against a maturity model[4]. The maturity model defines the practices and behaviours that characterise different levels of Through-Life Management development. Assessments against the maturity model are carried out primarily by the teams themselves, with the risk that they are neither fully objective nor consistent. The Equipment Capability Customer, Defence Procurement Agency and Defence Logistics Organisation all have different maturity targets reflecting their business needs, which are measured against the maturity model. No targets have been set by the Second Customer for assessing progress in embedding Through-Life Management within their organisations. Assessments against the maturity model are subjective and designed to be undertaken routinely by the teams themselves, subsequently endorsed during reviews with senior management as part of the regular Quarterly Project Progress Review process. Variation in approach and interpretation carry the risk of inconsistency of assessment. The Department is developing a common approach to these Quarterly Reviews.

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4   *The Model is defined as a tool to aid continuous improvement of Through-Life Management processes and Plans. It enables self-assessment at individual project level or on a whole Integrated Project Team level against a set of criteria, which describe whether a project/Team is "Beginning" (level 1), "Developing" (level 2), "Performing" (level 3), "High performing" (level 4) or "Excelling" (level 5) in Through-Life Management practice.*

21 The criteria used by the Department to scrutinise projects at the two key funding decision points in the acquisition cycle include whether there is a realistic plan for delivering and sustaining the requirement Through-Life and, overall, whether the investment represents value for money Through-Life. Our review of 19 recent large project investment decisions showed that these Through-Life Management issues were beginning to feature more prominently in the scrutiny of approvals, but scrutiny responsibilities and practice have not been established with sufficient clarity.

22 We consulted widely to identify where Through-Life Management could be shown to have delivered capability faster, cheaper or better. While some examples of good practice were identified, it proved difficult to clearly link successes to the application of Through-Life Management principles. The absence of clear data on examples does not necessarily mean that benefits are not being realised in practice, but it does mean that any benefits being achieved are not being recognised which, in turn, makes it more difficult to drive the culture change and spread good practice.

Recommendations for driving through the change to Through-Life Management

23 In Part 3 of our report we explore what more the Department can do to drive through the change to Through-Life Management and demonstrate its success in bringing about widespread improvements in the delivery of military capability. Our recommendations focus on two main areas: How the Department could develop its approach to managing Through-Life Management as a change programme; and How the Department could manage the enablers of Through-Life Management more proactively.

Part 1

Through-Life Management is a key element of Smart Acquisition but not all aspects of the change have been fully developed and managed coherently

1.1 This report examines the Ministry of Defence's (the Department's) implementation of a Through-Life Management approach to the delivery of military capability from the premise that it constitutes a major change. In this Part, we draw on good practice in change management identified by the Office of Government Commerce, RAND and others to conclude that the transition to Through-Life Management constitutes a major change for the Department and that the Department has yet to fully develop and manage all aspects of the transition as a coherent change programme.

1.2 While the Department has taken steps to improve its approach to implementing Through Life Management as it has recognised the challenge of the change, some aspects of its management of the change could be further developed. There has been continuing senior management support, but this has not always been consolidated into a clearly visible strategy for implementing Through-Life Management across the Department. The definition and benefits of Through-Life Management are not yet clear to some members of the acquisition community. Finally, the Department's plan for Through-Life Management has the potential to be developed and used to provide a coherent framework for managing the change effort.

Through-Life Management is a key element of Smart Acquisition and is linked to other changes

1.3 The implementation of Through-Life Management is a key element of far reaching Smart Acquisition reforms. Smart Acquisition has been progressing alongside other significant change initiatives, such as the introduction of Resource Accounting and Budgeting and changes to the Department's organisational structure, including the creation of the Equipment Capability Customer, the Defence Procurement Agency and the Defence Logistics Organisation. Implementation of these changes has been a major and resource-intensive challenge for the Department and achievements have included the rapid and successful introduction of Integrated Project Teams[5].

1.4 Many of these changes will support Through-Life Management. For example, Integrated Project Teams provide the focal point for Through-Life Management. Moreover, the Department's ability to reap the full benefits of Through-Life Management hinges on its success in developing other related areas of its business, particularly how it manages requirements, technology, suppliers and risks.

1.5 In mid-2002, Through-Life Management was identified as a corporate change programme in its own right by the Department's Change Delivery Group. The Change Delivery Group is a central group, led by the Secretary of State for Defence and the Second Permanent Under-Secretary, established to direct and manage change programmes across the Department. It seeks to ensure that the Department's major change programmes are mutually coherent, and that the change effort is concentrated on the highest priority projects. At present, the Through-Life Management initiative has not been subject to full examination by the Change Delivery Group as its linkages with other related elements of the overall Defence Change Programme (output management and improving the planning process) are still under consideration. Therefore, it has not yet been prioritised against the Department's top 13 change programmes.

Through-Life Management involves major change

1.6 A major change can be defined as having strategic importance and involving processes, systems and people coming together in multi-organisation partnerships[6]. Through Life Management involves major change as it is of strategic importance to the success of Smart Acquisition and affects culture, processes, systems and relationships across the Department.

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5   Report by the Comptroller and Auditor General on Implementation of Integrated Project Teams, HC 671 Session 2001-2002, 14 March 2002.
6   Definition of major change drawn from work by Office of Government Commerce and RAND.

Through-Life Management is of strategic importance to the success of Smart Acquisition

"We should adopt a through-life approach to projects covering both acquisition and in-service support"
- The Strategic Defence Review 1998

1.7 Smart Acquisition was introduced as part of the Department's 1998 Strategic Defence Review and is intended to "enhance capability by acquiring and supporting equipment more effectively in terms of time, cost and performance". Through-Life Management has been defined by the Department as "an integrated approach to all Smart Acquisition process, planning and costing activities across the Whole System and Whole Life of a project"[7]. The significance of Through-Life Management is recognised by references in a number of Departmental papers including The Strategic Defence Review 1998 (see quote above): the Defence Procurement Agency and Defence Logistics Organisation Corporate and Business plans; a number of external consultancy reports (including those commissioned from McKinsey and Pascale); and guidance contained within the Department's Acquisition Management System.

Through-Life Management involves a major change in culture and processes, systems and relationships across the Department

1.8 Through-Life Management of the delivery of military capability is complex and requires a forward-looking, long-term perspective to be applied to decision-making across the whole acquisition cycle. It involves a major change in culture and processes, systems and relationships for the Department and those doing business with it. The key characteristics of Through-Life Management, as defined in the Department's guidance, are summarised in **Figure 1**. Integrated Project Teams are responsible for managing an equipment throughout its lifecycle and are the focal point for Through-Life Management, but all members of the defence acquisition community **(see Figure 2)** have a role to play.

1.9 New tools and information sources are part of Through-Life Management, such as Through-Life Management Plans, Whole-Life Costs and systems to allow seamless operation between different parts of the Department. New mechanisms for engaging and changing the behaviour of the defence acquisition community are also key contributors to Through-Life Management, such as Capability Working Groups and Customer Supplier Agreements. Through-Life Management also requires new ways to measure progress and demonstrate achievements.

1	**Key characteristics of a Through-Life Approach**

The Through-Life approach has a number of characteristics

A whole-life outlook; starting from the point at which a capability gap is identified and continuing up to the point of final disposal
A whole-system outlook; taking an integrated approach to delivering all of the components of military capability, not just the equipment
Managing the Whole-Life Costs of capability; ensuring that investment decisions take full account of all the longer-term implications of acquisition, in terms of operating, supporting, maintaining and finally disposing of equipment
Proactive involvement of stakeholders throughout the process; being realistic about what can be affordably achieved and agreeing this with the customers and other stakeholders
Having a realistic, costed, whole-life plan - the Through-Life Management Plan - and maintaining this as a living document throughout the lifecycle
Better informed decision-making, through the use of Through-Life Management Plans

Source: Ministry of Defence

The Department has yet to fully develop and manage all aspects of Through-Life Management as a change programme

1.10 This section of our report outlines how the Department's implementation of Through-Life Management has evolved and compares the Department's management of the change with recommended good practice.

Through-Life Management is still evolving as a corporate change programme as the Department recognises the challenge its implementation presents

1.11 The evolution of the concept of Through-Life Management is unclear, but The Strategic Defence Review was the catalyst by which the Department reinforced the concept and application of Through-Life Management. Through-Life Management Plans were introduced as part of the managed change process for creating Integrated Project Teams between late 1998 and early 2000. Guidance on Through-Life Management was first developed and issued at the end of 1999 and has been evolving since. At the same time, the tools and information sources, mechanisms and measures to facilitate Through-Life Management have also been evolving.

7   *Acquisition Management System.*

2 Key stakeholders in the defence acquisition community[8]

Through-Life Management involves everyone in the defence acquisition community

Equipment Capability Customer (ECC)

The '1st Customer' or customer prior to the point when equipment becomes available to the user

Directors of Equipment Capability

Thirteen, who act as the contact point between the Integrated Project Team Leader and the Equipment Capability Customer

2nd Customer

Responsible for user and in-service aspects of programmes. Two-fold role:

Core Leadership generating long-term military capability, undertaken by the Single Service Chiefs; and

Pivotal Management specifying in-service outputs, negotiating Customer Supplier Agreements and monitoring Integrated Project Team performance, undertaken by end users.

Integrated Project Teams
Some 130, responsible for managing all aspects of equipment programmes through-life. Based within the Defence Procurement Agency or the Defence Logistics Organisation.

Defence Procurement Agency

DPA Integrated Project Teams are divided into 10 Peer Groups of projects. Peer Groups are intended to be an informal but valuable source of information. They do not exclude other informal arrangements being made between Integrated Project Teams outside of the same Peer Groups.

Defence Logistics Organisation

Integrated Project Teams within the DLO sit within one of four equipment support Business Units, three of which are environmentally based to reflect the relationship with the Service Second Customer and one of which provides communications services across MOD.

Industry
Membership of and involvement with Integrated Project Teams aims to provide industry with a clear understanding of the required capability and allow early and positive participation in the key process of trading off time, performance and Whole-Life Costs.

Source: National Audit Office

1.12 In March 2001, the Department concluded from discussions with Integrated Project Teams and stakeholders that "it was apparent that the value and need for Through-Life Management Plans was not widely understood and… key stakeholders had recognised that the advice on Through-Life Management that was provided to the Smart Acquisition Community may not be coherent". The Department recognised that the change was not progressing as quickly as required and noted that:

■ the development of Through-Life Management Plans and their use were both variable and not being measured;

■ skill levels in Integrated Project Teams for producing Through-Life Management Plans and Whole-Life Costs were low;

■ several maturity models and checklists for Through-Life Management were being developed, but these were not being co-ordinated effectively; and

■ there was a disconnect between systems across the Department, particularly for costing Through-Life Management Plans.

1.13 The Department's Procurement Development Group was tasked with the responsibility for developing Through-Life Management across the Department. Initially this was a loosely defined task, which the Department thought to be achievable within a few months. It has subsequently been evolving into a larger and longer-term programme of work as the change has proved to be a greater challenge than originally anticipated.

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8   *Within the Defence Procurement Agency and the Defence Logistics Organisation there are a number of different specialist functions and support groups that Integrated Project Teams interact with and which contribute to Through-Life Management.*

Comparison with good practice shows that some aspects of the Department's management of the change could be improved

Good practice in managing change recommends that:

The case for, and the value of, change must be clear to all those required to change their behaviour. If not, senior leadership cannot effectively support or sell the change and it will be difficult to combat the resistance that naturally rises up against any change.

Key leaders should form an effective coalition to give visible and continuing support to the change. Without this high-level support, change loses legitimacy and is vulnerable to resistance.

There should be an action plan for executing the change, to provide a coherent framework for managing the change effort and making appropriate adjustments as implementation progresses.

Source: Office of Government Commerce/RAND/National Audit Office

The definition and benefits of Through-Life Management are not yet clear to some members of the acquisition community

1.14 The Department has tried to communicate the importance of Through-Life Management through key documents and guidance, seminars, presentations and the media. This communication effort, together with steps that the Department has taken to increase awareness of the need for Through-Life Management Plans and improve the coherence of advice on Through-Life Management, has had some positive impact. We found that the majority of Integrated Project Team Leaders surveyed felt that Through-Life Management had been well defined and that the Defence Procurement Agency and Defence Logistics Organisation had well-developed levels of understanding. Conversely, they considered that the Second Customer and industry had less understanding about Through-Life Management and its benefits. These perceptions were reinforced by comments provided during our focus groups and other consultation. Notably, industry clearly desires a greater understanding of Through-Life Management and what the Department means by providing military capability.

There has been continuing senior management support, but this has not always been consolidated into a clearly visible strategy across the Department

1.15 A senior management group (the Acquisition Three-Star Group) was set up to provide high-level direction for the implementation of Smart Acquisition, including Through-Life Management. The Group, which meets quarterly, consists of the Deputy Chief Defence Staff (Equipment Capability), the Deputy Chief Defence Logistics and the Deputy Chief Executive Defence Procurement Agency. As **Figure 3** shows, the Group has championed a number of specific actions but how these have linked together to form a consolidated strategy for taking forward Through-Life Management has not always been clear. Also, the Group does not include representatives from all parts of the acquisition community with an interest in Through-Life Management, notably the Second Customer. The Department took this decision because it was considered that the numbers involved would make the Group unwieldy and reduce its effectiveness.

3 **Through-Life Management issues addressed by the Acquisition Three-Star Group**

The Acquisition Three-Star Group has championed a number of actions

Meeting	Issues Addressed
March 2001	Strategy to ensure coherent policy and advice on Through-Life Management Planning
September 2001	Progress with Whole-Life Costing and action to embed whole-life management culture
November 2001	Action to harmonise guidance on Quarterly Reviews, including objectives for the measurement of performance against targets set for continuous improvement and for assessment of the maturity of Through-Life Management Planning
April 2002	Through-Life Management Plan for Through-Life Management as forward strategy and plan for developing a Through-Life Management culture within the acquisition community
August 2002	Action to investigate the greater use of Through-Life, dual accountable Integrated Project Teams

Source: Ministry of Defence

A plan is in place for executing the change to Through-Life Management and has the potential to provide a coherent framework for managing the change effort

1.16 Initially, the Department did not have a plan for coherently executing the change to Through-Life Management. Efforts focused on requiring projects to have Through-Life Management Plans and this requirement was introduced alongside other Smart Acquisition initiatives. Following the progress review in March 2001, the Procurement Development Group developed a plan for managing the change and it has been taking action to engage with the key stakeholders **(as outlined in Figure 4)** to execute and embed Through-Life Management. **Figure 5 overleaf** details the work carried out to date as part of the change effort. We reviewed the Procurement Development Group plan against good practice criteria and found that with some further development it could fully reflect good practice and form a coherent framework for managing all aspects of the change effort **(see Figure 6 overleaf)**.

4   **Key Through-Life Management change stakeholders**

A number of key stakeholders are involved in the change process
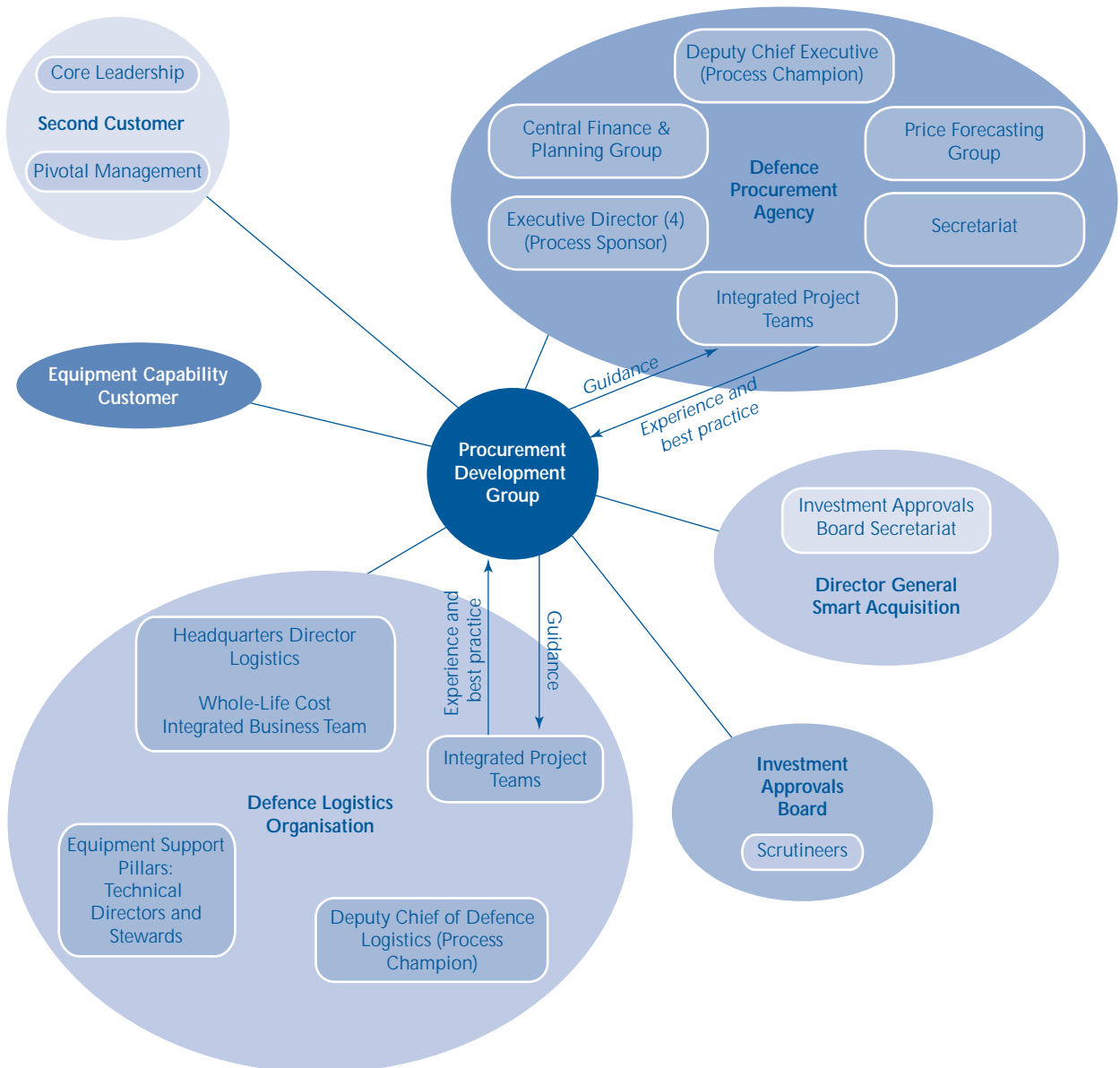
Source: National Audit Office

5 Through-Life Management change programme

Through-Life Management work to date

January 2001	Publication of guidance, Model 1.0, developed in close consultation with the stakeholder community (see Figure 4).
March 2001	Delivery of Learning From Experience seminar - Through-Life Management.
May 2001	The Defence Procurement Agency Conference focused on Through-Life Management culture as something that Integrated Project Teams must fully embrace, if they are to meet the Executive Board's desired objective of "managing projects better".
July 2001	Implementation of Approvals checklist with Integrated Project Teams. Issue 1 of the Through-Life Maturity Model distributed to all Integrated Project Teams.
September 2001	Delivery of Learning From Experience seminar - Whole-Life Costs.
November 2001	Issue 2 of Integrated Project Team/Project Transition Management guidance published.
December 2001	Publication of Through-Life Management guidance, Model 2.0.
March 2002	Roll-out of Cost Of Ownership tools and training to Major Projects Report 2002 projects (Whole-Life Cost Project Team).
July 2002	Issue 2 of the Through-Life Maturity Model published (incorporating lessons learned from one year using the model with teams).
September 2002	Delivery of Learning From Experience seminar - Whole-Life Costs.
November 2002	Through Life Management included as key workstream in new Defence Logistics Organisation Change Programme.
November/ December 2002	Publication of updated guidance.
November 2002 - February 2003	Defence Logistics Organisation Business Unit and Integrated Project Team Through-Life Management Workshops.
January 2003	Briefings to Peer Groups, Integrated Project Team Leaders and Project Teams and Equipment Capability Customers.
February 2003	Defence Logistics Organisation Smart Acquisition Road-Shows.
January - March 2003	Equipment Capability Customer Learning From Experience event.
March 2003	Learning From Experience event: National Audit Office Through-Life Management study.
March 2003	Roll-out of Cost Of Ownership tools and training to all Integrated Project Teams (Whole-Life Cost Project Team).
Ongoing	■ Sponsorship and delivery of training on Defence Procurement Management Training Project Management courses.
	■ Development of web-based "e-Through-Life Management Plan" solutions in both organisations.
	■ Intervention and support to all Integrated Project Teams in order to promote Through-Life culture and identify and spread best practice.
	■ Agreement of co-ordinated objectives, strategy and implementation plans across Defence Procurement Agency, Defence Logistics Organisation and Equipment Capability Customer.
	■ Through-Life Management joined with the Transition Planning workstream as part of the Defence Procurement Agency/Defence Logistics Organisation Total Interoperability Initiative.
	■ Engagement of the Equipment Capability Customer area by progressively building Whole-Life Cost considerations into their Equipment Plan, capability planning and Balance of Investment decision-making.

Source: Ministry of Defence

6   The Department's plan reviewed against good practice criteria

The Department's plan is not complete across all good practice criteria

Good Practice Point	Assessment of Departmental Action Plan
Identify key barriers to change and how to overcome them.	The plan identifies risks, constraints and critical success factors.
Assigning responsibilities for actions to realise the change.	Given the organisational structure of the Department, the Procurement Development Group does not have authority to implement the plan across the defence acquisition community. Implementation of the change process rests with the Through-Life Management Stakeholder Group, chaired by the Procurement Development Group. This Group manages the relationships between the stakeholders identified in Figure 4 and operates through consensus. The Second Customer is not represented. The Department has recognised the lack of clearly defined authority and accountability as a risk.
Providing resources for the change effort.	The plan gives a summary of the resources devoted to the change effort. This is not comprehensive, for example, Second Customer resources are not included. In addition, there is no clear mechanism for matching the resources identified to where the need is greatest. One of the risks identified in the plan is whether the level of stakeholder resource available will be sufficient to achieve the planned objectives.
Tracking progress across organisation as a whole.	The plan brings together the various objectives and targets relating to Through-Life Management the set across the Department. There are no objectives or targets for the Second Customer and it does not give a comprehensive and clear picture of progress in implementing Through-Life Management.
Keeping senior leadership informed.	The plan does not include mechanisms to facilitate comprehensive reporting of progress. Individual initiatives and organisations report separately to the Acquisition Three-Star Group and their own management boards on progress. One of the assurance issues noted in the plan is the need to clarify the content and structure of Through-Life Management reporting to the Defence Management Board and Joint Capabilities Board (i.e. "who reports what, to whom").

Source: National Audit Office

Part 2

The enablers of Through-Life Management are not yet fully in place

2.1 Drawing on good practice in change management, this Part of our report considers whether the Department has put in place all of the necessary mechanisms to enable Through-Life Management and demonstrates that these enablers are not yet fully effective. **Figure 7** illustrates good practice and equivalent Departmental enablers.

Progress in setting in place tools and information sources to support Through-Life Management has not always been as quick as the Department would have liked and more remains to be done

Good practice point:

Successful change hinges on having in place:

■ tools and information sources to support the change effort

Source: Office of Government Commerce/RAND/National Audit Office

Through-Life Management Plans offer benefits but are not always used to manage programmes

2.2 The aim of a Through-Life Management Plan is to detail how to take a project through its life, meeting Customer needs and providing visibility across the defence acquisition community. These Plans are central to the achievement of Through-Life Management. Through enhanced planning, Through-Life Management should lead to improvements in the affordability of future programmes, a reduction in the number of 'surprises' encountered by a project and better delivery of integrated military capability rather than individual items of equipment.

7 **Good practice and equivalent Departmental enablers**

The Department has developed a number of key enablers for Through-Life Management and we have examined whether these are fully in place

Good Practice Enablers	Equivalent Departmental Enablers
Tools and information sources needed to support the change.	We have examined whether Through-Life Management Plans, Whole-Life Costs and tools for enabling seamless interoperability are fully in place.
Effective mechanisms for engaging and changing the behaviour of stakeholders.	We have examined whether Capability Working Groups and Customer Supplier Agreements are in place and working effectively.
Ongoing measurement of the progress and success of the change.	We have examined whether comprehensive mechanisms are in place.

Source: Office of Government Commerce/RAND/National Audit Office

2.3 Many of the outcome benefits that can be derived from preparing and using a good Through-Life Management Plan accrue to programmes in the longer-term, and often after the tenure of teams currently managing the programmes. There are, however, more immediate and direct benefits to current teams in terms of plans facilitating easier management of programmes, although these may not always be as obvious to teams engaged in handling short-term pressures. A properly prepared and used Through-Life Management Plan should better inform day-to-day business and decision-making and give teams confidence in the actions they take and their likely outcome.

There is incomplete data on the existence and maturity of Through-Life Management Plans

2.4 The Department does not hold complete data on the existence and maturity of Through-Life Management Plans. The data that is available is separately collected by the Defence Procurement Agency and Defence

Logistics Organisation. Each organisation has collected the data required to support its own business purposes but as a result, the data has not been collected on a consistent basis across the Department.

2.5 There are gaps in the Defence Procurement Agency figures, as not all projects have supplied data. Of the 238 projects valued in excess of £20 million, data on the existence of Through-Life Management Plans is available for 173 (73 per cent). Out of the 173 with data available, 167 (95 per cent) have a Through-Life Management Plan **(see Figure 8)**.

2.6 The position on the existence and maturity of Through-Life Management Plans in the Defence Logistics Organisation is summarised in **Figure 9 and Figure 10 overleaf**. There are also gaps in the Defence Logistics Organisation data but it has become much more complete recently. Practice in developing and measuring the maturity of Through-Life Management culture is still evolving and differs across Business Units. Key points from Figure 9 and Figure 10 are:

- at the end of March 2003, the Department predicts that all projects currently required to have Through-Life Management Plans will have them;

- 208 of the 260 (80 per cent) Through-Life Management Plans are predicted to be complete and costed; and

- in the last quarter of 2002-03, the Department is predicting a step change improvement in the maturity of Through-Life Management Plans.

Through-Life Management Plans are more developed in some areas than others and are not seen as fully effective in facilitating Through-Life Management

2.7 We reviewed a number of Through-Life Management Plans against Departmental guidance. Whilst the majority of plans set out project objectives, stakeholders, strategies and methods, a significantly reduced number addressed Whole-Life Costs and measures of success **(see Figure 11 overleaf)**. A survey of Integrated Project Team Leaders conducted as part of our fieldwork suggests that few Through-Life Management Plans are fully effective in facilitating Through-Life Management. We also found that the majority of Integrated Project Team Leaders updated their plans every three months or at less frequent intervals. The degree to which teams actually utilise their Through-Life Management Plans also varies considerably. These responses indicate that the majority of these Plans are not truly "living" documents as envisaged by the Department.

8 Defence Procurement Agency Project Through-Life Management Plans

Data on the existence of Through-Life Management Plans is available for around three quarters of projects, and shows that 95 per cent of these projects have a Through-Life Management Plan

- ■ Total number of projects
- ■ Projects which provided data
- ■ Projects with Through-Life Management Plans (costed and uncosted)
- ■ Projects with Through-Life Management Plans (costed)
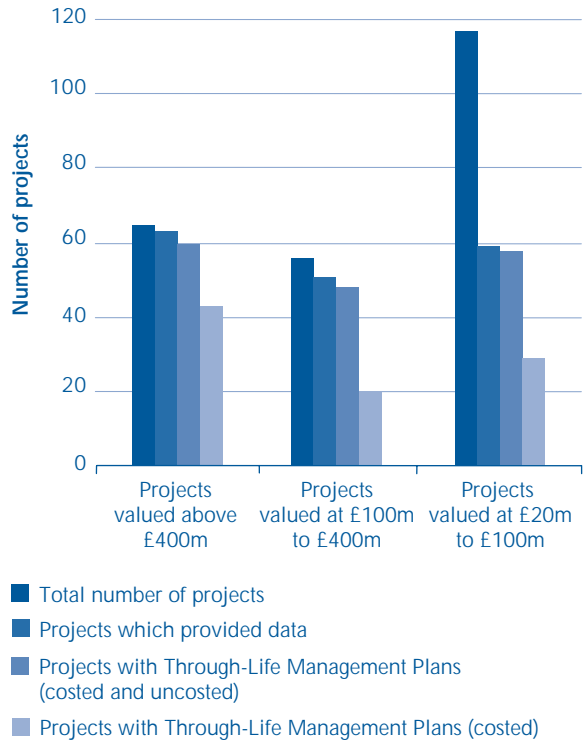
Source: Ministry of Defence

Not all members of the defence acquisition community contribute or have ready access to Through-Life Management Plans

2.8 It is important to ensure that all relevant members of the defence acquisition community have the opportunity to contribute to a project's Through-Life Management Plan and should have routine access to its content. Our survey indicated that, while the majority of Through-Life Management Plans are readily accessible within the Defence Procurement Agency, the Defence Logistics Organisation and the Equipment Capability Customer, their accessibility to the Second Customer and, in particular, industry is poor. This finding was borne out by results from our focus groups (attended by representatives of the Defence Logistics Organisation, the Second Customer and industry respectively), where the consensus was that too few are being developed with full consultation. More specifically, the Defence Logistics Organisation focus group noted that the assumptions underpinning Through-Life Management Plans were not always shared. It was also pointed out that the approach to Through-Life Management planning within the Department was not always consistent and that there was a lack of visibility of plans to the Second Customer.

9   Defence Logistics Organisation - Through-Life Management Plan existence and maturity.

The picture on the existence and maturity of Through-Life Management Plans is becoming more complete

Business Unit	Maturity Level at end quarter 3, 2002-03					Predicted Maturity Level at end quarter 4, 2002-03				
	Number of projects requiring TLMPs	Not known	No Draft TLMP (Level 1)	Uncosted Draft TLMP (Level 2)	Costed TLMP (Level 3)	Number of projects requiring TLMPs	Not known	No Draft TLMP (Level 1)	Uncosted Draft TLMP (Level 2)	Costed TLMP (Level 3)
Defence Communications & Services Agency	37	0	11	26	0	37	0	0	22	15
Equipment Support (Air)	21	0	0	17	4	21	0	0	5	16
Equipment Support (Land)	92	0	0	92	0	83	0	0	3	80
Warship Support Agency	124	124	0	0	0	119	0	0	22	97
Totals	274	124	11	135	4	260	0	0	52	208

NOTES

TLMP = Through-Life Management Plan

Between the end of quarter 3 and the end of quarter 4, 2002-03 the number of projects requiring Through-Life Management Plans will reduce by 14. The Department has explained that this variation is the result of ongoing consolidation of project teams and associated projects within the Business Units.

Maturity Level Definitions:

Level 1 - No Draft Through-Life Management Plan

Level 2 - Uncosted Draft Through-Life Management Plan

Level 3 - Costed Through-Life Management Plan

Source: Ministry of Defence

Most Through-Life Management Plans only address the equipment elements of military capability, but the focus is changing

2.9 The delivery of equipment capability is only one strand of the overall package required to deliver a front-line military capability. There are six components of capability, otherwise known as Lines of Development. **Figure 12 overleaf** illustrates these components and the different Departmental stakeholders responsible for their delivery. Our recent report on the *Introduction of the Apache Attack Helicopter[9]*, highlighted the critical importance of ensuring that all six Lines of Development are fully delivered.

2.10 Initially, Departmental Through-Life Management Plan guidance focused on the equipment aspects of capability. In December 2002, this guidance was updated to recommend that Through-Life Management Plans should consider the integration of all six Lines of Development as defined in Figure 12. There are already a few examples of Through-Life Management Plans which seek to address all six Lines of Development. The Watchkeeper programme, which aims to deliver a new Unmanned Aerial Vehicle capability, is an example of good practice, in that it has addressed the development and integration of the six Lines of Development from the outset **(see Figure 13 on page 20)**.

2.11 The Army has developed a particularly sophisticated model for ensuring coherent delivery of the five non-equipment Lines of Development and their integration with the equipment capability to produce operational military capability. The Army Second Customer Capability Integration Plan is a tool designed to generate confidence that all the wider issues associated with the procurement and development of a new discrete capability have been addressed. It acts as a focus to pull together the five non-equipment Lines of Development in a coherent and timely fashion. Capability Integration Plans are not intended to replace Through-Life Management Plans and do not absolve either the Equipment Capability Customer or Integrated Project Teams from their own responsibilities in respect of delivering and maintaining equipment capability. The Department has acknowledged Capability Integration Planning is an example of good practice in this area and has highlighted it as such in its recently revised guidance for developing Through-Life Management Plans.

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9   *Report by the Comptroller and Auditor General on Building an Air Manoeuvre Capability: The Introduction of the Apache Helicopter, HC 1246 Session 2001-2002, 31 October 2002.*

10 **How the average maturity of Through-Life Management Plans is predicted to develop in the Defence Logistics Organisation**

All Business Units are predicting a step change in the average maturity of Through-Life Management Plans in the last quarter of 2002-03

Legend:
- ■ Average Through-Life Management Plan Maturity Level at end quarter 3, 2002-03
- ■ Average Predicted Through-Life Management Plan Maturity Level at end quarter 4, 2002-03
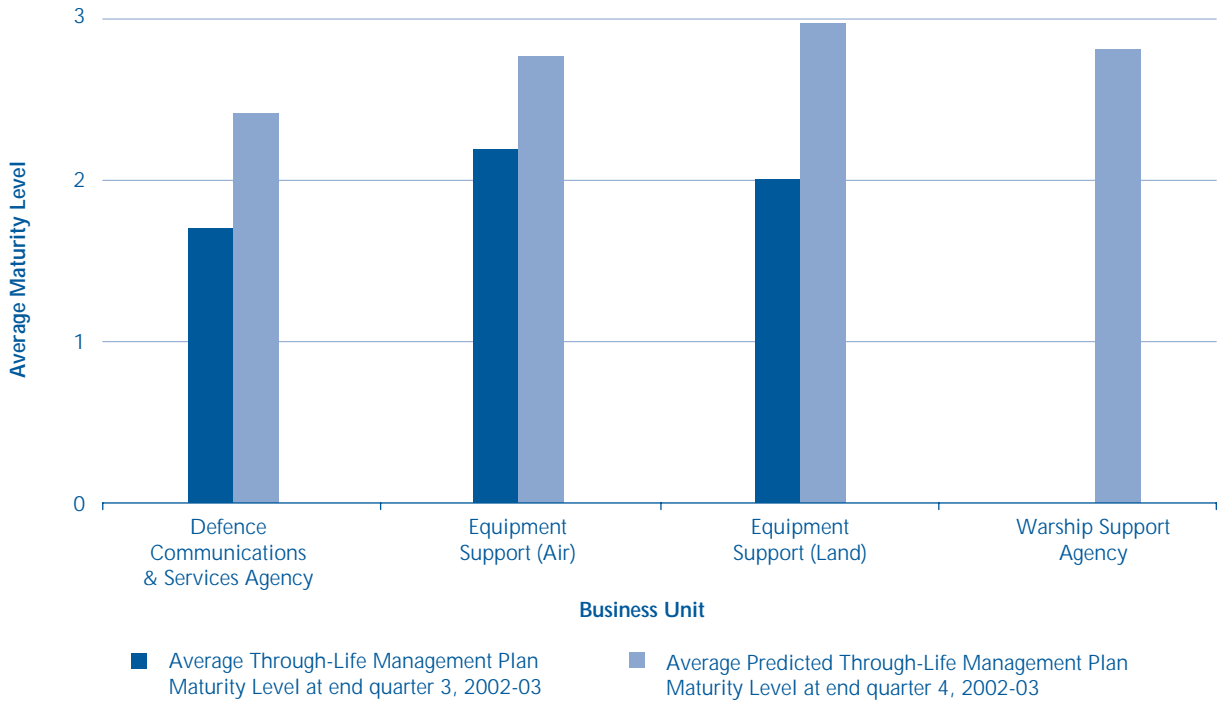
NOTES

No end of quarter 3 Maturity Level data available for Warship Support Agency.

Source: Ministry of Defence

11 **Through-Life Management Plan completeness measured against the six review criteria**

Through-Life Management Plans reviewed were not complete as measured against Departmental guidance

Project Mission and Objectives	69%
Stakeholders	72%
Strategies	61%
Method/Acquisition Strategy	72%
Whole-Life Costs & Resources	38%
Evaluation of Success	30%
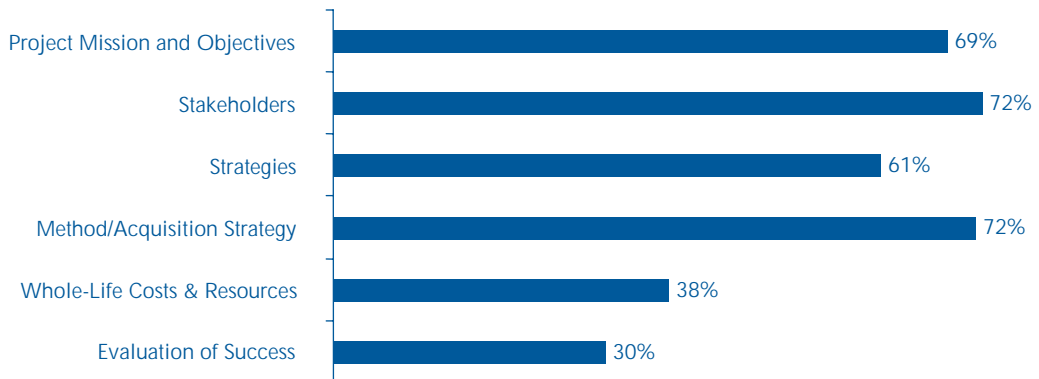
NOTES

Based on a review of seven Through-Life Management Plans against six criteria drawn from Departmental guidance with scoring weighted to reflect each project's stage in the acquisition cycle (see methodology appendix). The level of detail in individual plans across each of these criteria will vary according to project needs and position in the acquisition lifecycle. There is therefore no expectation that individual or average scores would amount to 100 per cent.

Source: National Audit Office

12 The Lines of Development and stakeholders responsible for their delivery

There are six Lines of Development required to deliver military capability

People

It is essential to have the right people trained and in place. Effects on manpower must be considered, particularly if there will be an increase or decrease in required manning and the costs incurred and savings made. Linked to Force Structure & Estates.

Force Structure & Estates

The introduction of a new equipment may require changes to current force and unit structures. These are likely to have corresponding cost adjustments.

Examples of Estates issues:
■ Is specialist accommodation/storage required?
■ Are there sufficient maintenance facilities?
■ Does barracks infrastructure need strengthening?

Equipment Capability Customer

Capability Manager

Second Customer (Personnel Commands)

Second Customer (Chiefs of Staff)

Director Equipment Capability

Second Customer (Pivotal Management)

MILITARY CAPABILITY

Sustainability

Ongoing and emerges from a rigorous assessment of the requirement. Resource consumption during peacetime and operations must be quantified. The Support Strategy is approved at Main Gate.

Equipment

Equipment is delivered according to performance, time and cost parameters that are in place by Main Gate. The Integrated Project Team can purchase existing products or contract for entirely new equipment. The equipment choice is underpinned by a set of Key User Requirements.

Integrated Project Team

Integrated Project Team

Defence Procurement Agency

Second Customer (Joint Doctrine & Concepts Centre/ Chiefs of Staff)

Second Customer (Training Commands)

Defence Logistics Organisation

Concepts & Doctrine

Underpins all others. An agreed concept of how the military capability will be used needs to be in place at an early stage. The associated tactics, techniques and procedures require careful consideration from an early stage.

Training

A Training Needs Analysis must be carried out, which will also identify Whole-Life Costs.

NOTE:

The Royal Air Force has a seventh Line of Development - Decision Support.

13 The Watchkeeper Through-Life Management Plan

The Watchkeeper Through-Life Management Plan has addressed military capability from the outset

Stakeholders
Identifies core stakeholders as those responsible for the management of the six Lines of Development
Detailed stakeholder responsibility matrix including Second Customer

Impact
Reduced Whole-Life Cost estimate from £2 billion to £1.7 billion
Allows trade-offs to be applied across all Lines of Development

Through-Life Management Plan to deliver military capability

Strategy
The Management Strategy to bring the Watchkeeper capability into service is based upon addressing the six Lines of Development
Progress diagram charting activities for each Line of Development

Accountability
The costed Through-Life Management Plan forms the Customer Supply Agreement for:
People
Concepts & Doctrine
Training
Sustainability
Force Structure & Estates

Costs
Whole-Life Costs based on Common Master Data and Assumptions List used to provide an audit trail for each data element
Through-Life Cost Forecast based on attributed costs for each Line of Development
Cost data supplied per Line of Development over ten-year period

Source: Ministry of Defence

Robust Whole-Life Cost data is not yet widely available, but progress is being made

2.12 Whole-Life Costing is the continuous process of forecasting, recording and managing costs throughout the life of an equipment, with the specific aim of optimising its Whole-Life Costs and military output. In theory, the Department has produced Whole-Life Cost information for a number of years and used it to inform major equipment procurement decisions. However, the data produced has usually reflected only those costs closely associated with the equipment (for example spares, maintenance and fuel consumption) because of the difficulties faced in identifying and quantifying other costs. The initially slow progress in implementing Whole-Life Costs resulted from the Department's focus on the development of its Resource Accounting and Budgeting system, which has consumed a large proportion of the Department's finance effort.

2.13 The Defence Procurement Agency works to a Ten-Year planning cycle, while the Defence Logistics Organisation works to a Four-Year planning cycle. Irrespective of differences in planning periods, Through-Life Management Plans need to be costed robustly. Without robust Whole-Life Costs and cost data, Through-Life Management Plans cannot be fully effective at informing planning or programme decisions in the medium to long term. Of the 238 Defence Procurement Agency projects valued in excess of £20 million, data on whether Through-Life Management Plans are costed is available for 173 (73 per cent). Out of the 173 projects with data available, 92 (53 per cent) are costed (see Figure 8 on page 16). In the Defence Logistics Organisation, 208 out of the current total of 260 (80 per cent) projects are predicted to have costed Through-Life Management Plans by the end of March 2003. In addition, the Through-Life Management Plans we reviewed showed that, on average, the Plans assessed reached a 38 per cent level of completeness of the Whole-Life Costs and Resources section (see Figure 11 on page 18).

2.14 In April 2001, to drive forward its work on Whole-Life Costs, the Department established a Whole-Life Costing Project Team within the Defence Logistics Organisation. This team is tasked with delivering the processes, tools, guidance and training to assist Integrated Project Teams and their stakeholders across the Department to take account of the true Whole-Life Cost Of Ownership for equipment. The Department is also seeking to address coherency between the Defence Procurement Agency's Ten-Year planning cycle and the Defence Logistics Organisation's Four-Year planning cycle through a new strategic planning initiative.

Some interoperability issues remain to be resolved

2.15 A key tenet of Smart Acquisition is that Integrated Project Teams are accountable for managing an equipment throughout its life. Integrated Project Team leaders are accountable for performance to both the Chief of Defence Procurement and the Chief of Defence Logistics. In terms of financial accountability, the Department's organisational structure means that the Chief of Defence Procurement is responsible for expenditure in the initial stages of the acquisition cycle and the Chief of Defence Logistics is responsible for expenditure related to the in-service phases. In some cases, Integrated Project Team Leaders are accountable for expenditure to both. In other cases, as the project enters the support phase, accountability for expenditure transfers to another Integrated Project Team hosted by the Defence Logistics Organisation. This transition can involve:

- geographical relocation of the team's personnel as the hosting organisation changes; and

- transfer of project management and financial accountability to another Team Leader.

The Total Interoperability Initiative has been running since May 2001 and has more to do to improve the Defence Procurement Agency-Defence Logistics Organisation interface

2.16 Recognising that interoperability between the Defence Procurement Agency and the Defence Logistics Organisation is essential in ensuring seamless management of equipment capability projects and to successful Through-Life Management, the Department launched its Total Interoperability Initiative in May 2001. The aim of the initiative is to improve how the two organisations operate together in a number of areas, including Human Resources, Finance and Performance Management.

2.17 The initiative has delivered some improvements in the commonality of the approaches adopted by the Defence Procurement Agency and the Defence Logistics Organisation. For example, Human Resource services for the Defence Procurement Agency and the Warship Support Agency (one of the Defence Logistics Organisation's Business Units) at Abbey Wood, Bristol, are now provided from a single integrated source. How successful the initiative overall has been is unclear, mainly because the programme for achieving its objectives has not been fully integrated and communication of progress and achievements against it has been poor.

2.18 In August 2002, the initiative was re-focused to give it fresh impetus by better linking it with wider work under Smart Acquisition and improving engagement and communication with Integrated Project Teams. The focus of the initiative is now on aligning common business objectives between the Defence Procurement Agency and Defence Logistics Organisation as well as key Integrated Project Team processes in the areas of Human Resources, Finance, Performance Management and Key Supplier Management. **Figure 14 overleaf** outlines the work carried out to date under the Total Interoperability Initiative and future milestones.

2.19 A report in August 2002 on re-energising the Defence Logistics Organisation change programme found that there was scope for improvement in the Defence Procurement Agency-Defence Logistics Organisation interface. It identified that tighter co-ordination between the two organisations remained critical to the delivery of optimised Whole-Life Cost solutions to military capability requirements. Our fieldwork has also indicated that a number of interoperability issues remain to be resolved by the Department.

2.20 **Figure 15 overleaf** illustrates the results of our survey of Integrated Project Teams that have experienced transfer between the two organisations. We asked them to assess the level of interoperability between the Defence Procurement Agency and the Defence Logistics Organisation in a number of key areas. Our results show that these teams rated the transition of both staff and data as being particularly problematic.

Corporate management information on transition is lacking

2.21 Deciding when an Integrated Project Team or project should transfer is not mechanistic and is treated flexibly. The Department does not hold corporate information on Integrated Project Teams or projects that have transferred or are due to transfer between the two organisations. This lack of management information has limited the Department's ability to plan for future transfers of Integrated Project Teams and projects, which has in turn had a number of implications in terms of financial, infrastructure and personnel planning. The Defence Procurement Agency's new initiative "Project Forward Look" should improve the level of corporate management information regarding this issue.

14 Total Interoperability Initiative

The Total Interoperability Initiative has made some progress but work remains to be done

Total Interoperability Area	Work Done	Future Milestones
Human Resources	**April 2002**	**May 2003**
Deliver Total Interoperability in Human Resource services for all Defence Procurement Agency and Defence Logistics Organisation staff.	Creation of a single integrated source of Human Resource services for the Defence Procurement Agency and Defence Logistics Organisation (Warship Support Agency) based at Abbey Wood.	Shared plans for transition of Integrated Project Teams between the Defence Procurement Agency and Defence Logistics Organisation. **Throughout 2003** Exploit capability of the Human Resource Management System.
Finance	**January 2002**	Under Review
Harmonised financial regime with common finance processes for, and in support of, all Integrated Project Teams.	Policy statement on Modified Historic Cost Accounting issued. **October 2002** Defence Procurement Agency/Defence Logistics Organisation finance timetable.	
Performance Management	**September 2002**	Ongoing
Develop and implement a coherent Performance Management process supported by a single management information system, accessible at all levels.	Sharing of joint planning information.	
Key Supplier Management	**January 2002**	**July 2003**
Develop excellence in relationships with suppliers.	Briefing processes aligned, ensuring Ministers and senior staff have widest possible view of the Department's relationship with a company. **January 2002** Joint training of Defence Procurement Agency/Defence Logistics Organisation staff. Development of joint processes and team building.	Develop joint supplier management process with the Defence Procurement Agency and Defence Logistics Organisation.

Source: Ministry of Defence

Gaps in transition planning at project level are being addressed

2.22 The quality of transition plans remains variable. For example, the C-17 Integrated Project Team transferred without a formally issued transition plan, although it did track a series of transition actions with Defence Logistics Organisation staff and the Health Usage and Monitoring System Integrated Project Team transferred with a minimal transition plan. Teams are being encouraged to undertake more careful transition planning and give greater focus to this at team level.

Geographical relocation of Integrated Project Teams causes disruption

2.23 The transfer of Integrated Project Teams from the Defence Procurement Agency to the Defence Logistics Organisation often requires the physical relocation of staff from the Defence Procurement Agency site at Abbey Wood, Bristol to one of a number of Defence Logistics Organisation sites **(see Figure 16 opposite)**. In a number of cases, Integrated Project Teams have suffered significant losses of personnel during transfer. For example, the Health Usage and Monitoring Systems Integrated Project Team has had a near 100 per cent turnover in staff, seen to be directly linked to their forthcoming transfer to Yeovilton. These findings are reinforced from our survey of teams that have transferred (see Figure 15). These significant losses of personnel (along with their skills, experience and implicit knowledge) may have a negative impact on the team's ability to operate in a Through-Life manner.

15 **Transition rated by Team Leaders**

Transition is still problematic in a number of areas

Score: 1 (Disjointed) - 4 (Seamless)
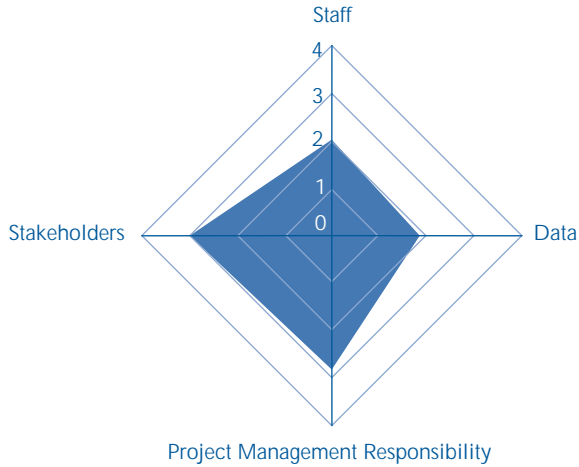
2.24 Geographic mobility of personnel is a difficult issue, as there are a number of financial, economic, employment and social factors involved. The Department is currently investigating the possibility of addressing these issues through such measures as better incentive packages, enhanced relocation support and the provision of greater assurance for personnel who move with a project but want to return to their parent organisation in the future. Also as part of work commissioned by the Acquisition Three-Star Group a model to support planning and decision-making on the location and size of future Integrated Project Teams is being developed. A pilot scheme is underway to restructure and co-locate Defence Procurement Agency and Defence Logistics Organisation teams working on the Combat Support Vehicle programme at a single site in Andover.

16 **Key Defence Procurement Agency and Defence Logistics Organisation locations**

1 **RAF Brampton**
Defence Logistics Organisation
(Equipment Support (Air))

2 **RAF Wyton**
Defence Logistics Organisation
(Equipment Support (Air))

3 **Caversfield**
Defence Logistics Organisation
(Equipment Support (Land))

4 **Didcot**
Defence Logistics Organisation
(Equipment Support (Land))

5 **Corsham**
Defence Logistics Organisation
(Defence Communications
Services Agency)

6 **Abbey Wood, Bristol**
Defence Procurement Agency
Warship Support Agency

7 **Ensleigh, Bath**
Defence Logistics Organisation Headquarters
Foxhill, Bath
Defence Logistics Organisation

8 **Andover**
Defence Logistics Organisation
(Equipment Support (Land))

9 **RNAS Yeovilton**
Defence Logistics Organisation
(Equipment Support (Air))
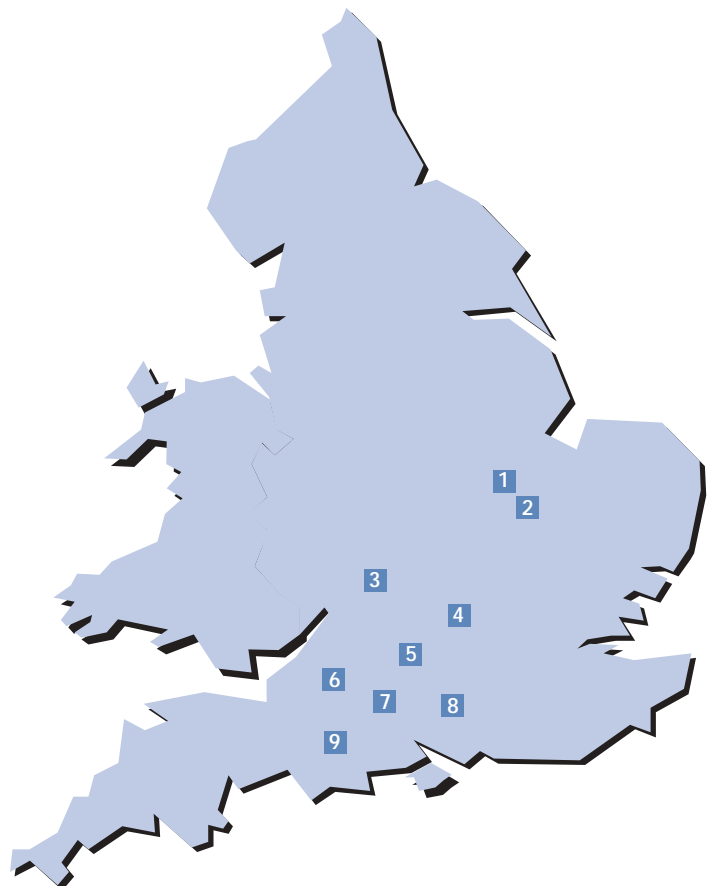
Differences between financial systems cause problems

2.25 The Defence Procurement Agency runs a single financial reporting system, while the four Defence Logistics Organisation Business Units each have a different reporting system. This has led to increasing levels of pressure on financial staff within teams, particularly the approximately 56 teams that are Dual Accountable (i.e. hosted by one organisation but accountable to more than one budget holder). For example, the C-17 Integrated Project Team stated that, in finance terms, its workload had increased by some two-thirds since the team became Dual Accountable in April 2002; the Health Usage and Monitoring System Integrated Project Team stated that its finance workload had effectively doubled.

Information Technology interoperability is a major hurdle

2.26 The use of a variety of Information Technology Systems has caused compatibility problems, highlighted by our survey of Integrated Project Team Leaders **(see Figure 17).** Difficulties include the loss of data as Integrated Project Teams transfer between the two organisations. This has led to examples of workarounds, such as teams having to install two sets of computer hardware at their new location or maintaining offices at two separate locations, with staff having to travel between the two sites to input and retrieve data. For example, the C-17 Integrated Project Team is relaying data from Bristol using one system so that it can be entered onto another system by staff based at RAF Wyton in Cambridgeshire. The Department has long realised the critical nature of ensuring Information Technology interoperability between the two organisations, stating in 1998 that: "The full potential of an integrated approach can only be realised if it is supported by inter-operable communications and information systems"[10]. A key initiative in this area is the Defence Information Infrastructure which, over the next five years, is seeking to integrate together the numerous existing and new information systems across the Department to support business processes and operations.

Some mechanisms for engaging the defence acquisition community and promoting Through-Life Management behaviour are not yet fully effective

Good practice point:

Successful change hinges on having in place:

■ effective mechanisms for engaging and changing the behaviour of stakeholders

Source: Office of Government Commerce/RAND/National Audit Office

Capability Working Groups are in place, but are still evolving

Working practices vary widely

2.27 Capability Working Groups bring together members of the defence acquisition community and are a key forum for discussing Through-Life issues. They are brought together by the Directors of Equipment Capability who sit within the wider Equipment Capability Customer organisation. These Groups can take the form of meetings or other informal contacts. Their purpose is to provide expertise and consultation regarding equipment options, and provide support to the Director of Equipment Capability in the management of his Capability Area.

17 **Rating of interoperability between the Defence Procurement Agency and the Defence Logistics Organisation**

Seamless interoperability between the Defence Procurement Agency and the Defence Logistics Organisation is yet to be realised

a	Finance
b	Information Technology
c	Culture
d	Human Resources

Source: National Audit Office

10   *Strategic Defence Review Study SF3/7 Smart Procurement Final Report Issue 1, 19 January 1998.*
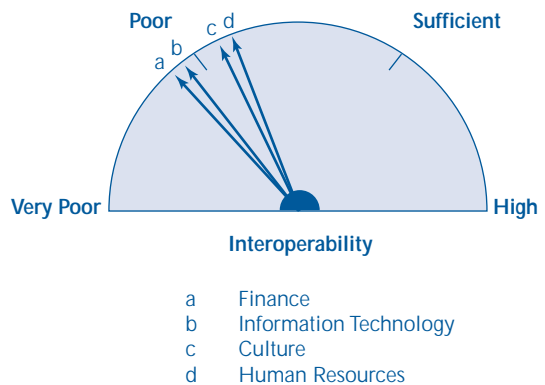
2.28 The scope for Capability Working Group activity is very wide and practice varies across the Directors of Equipment Capability. The Groups are not subject to a mandated modus operandi or specific outputs, which are left to the discretion of each empowered Director of Equipment Capability. The number of formal Capability Working Groups operated by each Director of Equipment Capability varies.

2.29 **Figure 18** details the number and scope of Groups as at January 2003.

The role of Capability Working Groups is still evolving

2.30 Our fieldwork indicates that Capability Working Groups are broadly effective in engaging a wide range of stakeholders from within the Department. Engaging with external stakeholders appears to be problematic. This is particularly the case in relation to industrial representation. Issues such as protection of intellectual property rights, commercial and Departmental sensitivities and security all require management before industry can be successfully engaged in Capability Working Groups. In practice, most Directors of Equipment Capability choose to engage industry bilaterally as the most effective form of Capability Working Group engagement.

18 **Capability Working Group structure across the Directorates of Equipment Capability***

The structure and operation of Capability Working Groups varies across the Equipment Capability Customer

Directorate Equipment Capability	Number of Capability Working Groups	Formal Meetings	Informal Mechanisms	Industry Participation	Overall Importance**
Deep Strike	3	✔	✘	✘	Low
Above Water Battlespace	3 2 cross-Directorate	✔	✔	✘	High
Under Water Battlespace	5	✔	✔	✘	High
Deploy Sustain Recover	5	✔	✔	✘	High
Indirect Battlefield Engagement	2 1 industry 1 research	✔	✔	✔	High
Combat Service Support	3 activated	✔	✘	✘	Medium
Nuclear Biological Chemical	6 1 industry	✔	✘	✔	High
Intelligence Surveillance Target Acquisition & Reconnaissance	Not Available	✔	✔	✘	High
Command Control & Information Infrastructure	30	✔	✔	✔ (If appropriate)	High
Tactical Mobility	7	✔	✘	✔	Low
Special Projects	20	✔	✘	✘	High
Direct Battlefield Engagement	4	✔	✘	✔ (If appropriate)	Low
Theatre Airspace	14	✔	✘	✔ (Joint User Requirement)	Medium
Total	107				

**The rating is based upon survey comments and how often Groups meet.

NOTE

*   Reflects position as of January 2003.

Source: National Audit Office

2.31 The Department is reviewing the effectiveness of Capability Working Groups. The recent review of the Equipment Capability Customer's activities (the 2002 Pascale Report) found that, since 1999, Capability Working Groups have made a variable contribution to the organisation's business. The Department's new Capability Working Group guidance addresses ways in which to minimise nugatory stakeholder involvement, for example ways to overcome commercial confidentiality issues.

Customer Supplier Agreements are intended to be a key accountability mechanism, but have not been seen as effective

The Department is working to make in-service Customer Supplier Agreements more effective as accountability documents

2.32 Customer Supplier Agreements set out working relationships and record other key project information such as deliverables required, performance measures and targets. They rely on the customer being realistic in specifying what requirements are needed against what the supplier can reasonably be expected to deliver. There are two distinct types of these Agreements in use covering procurement and support. Procurement phase Agreements have in practice proved to be of limited utility in addition to Through-Life Management Plans and Approvals documentation. Support phase Agreements should assume greater importance as primary accountability documents. The Department has recognised this and, in the Defence Logistics Organisation, top-level Agreements are being introduced between the Chief of Defence Logistics and his customers.

2.33 Customer Supplier Agreements were perceived by the majority of Integrated Project Team Leaders we surveyed as only marginally effective in facilitating a Through-Life approach to managing their programme. Further to this, the majority also stated that they did not consider their Customer Supplier Agreements to be fully effective as accountability mechanisms for ensuring delivery of customer requirements. The key reason cited for these views was the lack of Through-Life focus in current Acquisition and Support Customer Supplier Agreements, which focus primarily on in-year activities and output.

The Second Customer's non-fund-holding status reduces the effectiveness of Support Agreements

2.34 The original McKinsey Smart Acquisition recommendations stated that: "The customer should be responsible for allocating the portion of in-year budgets to the Single Services for in-service support of equipment" and that customer control of the budgeting and funding for procurement and in-service support is a "fundamental principle" of the new Acquisition model.

Currently, the Second Customer has little control over the deployment of support funding in the delivery of sustainability outputs. As a result, Customer Supplier Agreements (Support) can be aspirational in nature, in that the Second Customer can state his requirements but, without control of the funding, has no means under his own control of balancing his requirements against their costs. The Defence Logistics Organisation's high-level Agreements currently being introduced should help to make these Agreements more realistic.

The Agreements do not cover all aspects of the delivery of military capability

2.35 Departmental guidance states that Customer Supplier Agreements should be created between the Director of Equipment Capability and various elements of the Second Customer for the delivery of the five non-equipment components of capability. In the course of our fieldwork, we did not discover any examples where this has in fact occurred. There are examples (such as Watchkeeper - see Figure 13 on page 20) where Through-Life Management Plans are used as equivalent Customer Supplier Agreements for the delivery of all six Lines of Development.

Measurement of progress and success is patchy and still developing

> **Good practice point:**
>
> Successful change hinges on having in place:
>
> ■ ongoing measurement of the progress and success of the change.
>
> *Source: Office of Government Commerce/RAND/National Audit Office*

Targets have been set but are structured differently across the Department to reflect business needs and could be developed to improve the robustness of their measurement

2.36 The Department measures progress primarily by assessing how well developed the Through-Life Management planning process is in individual projects or Integrated Project Teams against a maturity model. The maturity model (see Figure 19 opposite) defines the practices and behaviours that characterise different levels of Through-Life Management development. Assessments against the maturity model are subjective and designed to be undertaken routinely by the teams themselves, subsequently endorsed during the Quarterly Review process (see paragraph 2.38). Variation in approach and interpretation carry the risk of inconsistency of assessment.

19 The Department's Through-Life Maturity Model

Extracts of criteria from the Through-Life Management Maturity Model

Beginning	No Behaviour Change
Level 1	■ No Through-Life Management Plan.
	■ Whole-Life Costs not considered. Project planning is based solely on the ten-year or four-year planning cycles.
	■ Stakeholder relationships and requirements not clearly defined or understood. Stakeholders not part of Through-Life project planning and decision-making.
	■ No/minimal prior consideration given to project transition planning.

Developing	Aware of Through-Life Management, starting to implement
Level 2	■ Through-Life Management Plan being developed, or plan is draft and incomplete.
	■ Team has started to address Whole-Life Costs, but data incomplete.
	■ Stakeholders are mapped in the Through-Life Management Plan, and all key stakeholder dependencies, outputs and assumptions identified.
	■ Project transition strategy drafted. Transition manager appointed. Transition Working Group established.

Performing	Implementing Through-Life Management, starting to see benefits
Level 3	■ Through-Life Management Plan populated. Gaps relate only to agreed low-risk issues.
	■ Costing template is populated and integrated into the Through-Life Management Plan, but some areas may need further development.
	■ All key stakeholders have seen and endorsed the Through-Life Management Plan.
	■ Project transition strategy agreed and integrated with Through-Life Management Plan. Transition Working Group in operation.

High Performing	Benefitting: Through-Life culture embedded, making gains from Through-Life Management
Level 4	■ Through-Life Management Plan is being revised and improved as a routine process.
	■ Whole-Life Cost information being used to support the ten-year and four-year planning process.
	■ Stakeholders recognise and use the Through-Life Management Plan as their key decision-making document.
	■ Transition is/was well planned, Defence Procurement Agency/Defence Logistics Organisation Interoperability is optimised.

Excelling	Advancing the best practice in Through-Life Management
Level 5	■ Team is working with others to help them improve.
	■ Team is recognised as leading best practice in use of costed Through-Life Management Plans. Whole-Life Costs are totally integrated into all project planning and decision-making with stakeholders.
	■ Team processes and stakeholder processes are totally aligned within a Through-Life framework.
	■ Transition of projects to Second Customer and/or Defence Logistics Organisation at In-Service Date is/will be seamless and smooth. Team is a model for best practice.

Source: Ministry of Defence

2.37 As **Figure 20 overleaf** shows, the Equipment Capability Customer, Defence Procurement Agency and Defence Logistics Organisation all have different maturity targets, which are assessed against a common maturity model. The Equipment Capability Customer is focused on a major project within each Capability Area, whilst the Defence Procurement Agency has consistently focused on projects valued in excess of £20 million. The Defence Logistics Organisation concentrates on cultural maturity of Integrated Project Teams within each Business Unit. There are no clear targets set by the Second Customer.

2.38 As part of their regular reporting process, Integrated Project Team Leaders hold Quarterly Reviews with senior management from the Defence Procurement Agency and the Defence Logistics Organisation. Since August 2001, the Department has required Through-Life Management maturity to be assessed as part of its Quarterly Project Review process. Although this is happening in the majority of cases, there is no consistent approach to assessing maturity. The Department is developing a common process for Quarterly Reviews, which will incorporate Through-Life Management aspects.

20 Departmental Through-Life Management targets

There are a number of targets in existence across the defence acquisition community

Defence Procurement Agency

Strategic Goal: Through-Life Management culture fully embedded and all projects rated as "Performing" on Through-Life Management Maturity Model by March 2006.

Through-Life Management Planning	2002-03	2003-04	2004-05
Defence Procurement Agency projects with Costed Plans and rated as "Performing" on Through-Life Management Maturity Model.	100% of projects valued above £100m and 80% of projects valued above £20m	100% of projects valued above £20m	
Defence Procurement Agency Projects with Costed Plans and rated as "High Performing" on Through-Life Management Maturity Model.	40% of projects valued above £20m	80% of projects valued above £20m	100% of projects valued above £20m
Maintain and implement, on behalf of all stakeholders, an Action Plan for the Through-Life Management programme of activity (includes process, guidance and training).	Update and publish after each full stake-holder meeting	Update and publish after each full stake-holder meeting	Update and publish after each full stake-holder meeting

Defence Logistics Organisation

Through-Life Management Planning	2002-03	2003-04	2004-05
All Integrated Project Teams shall demonstrate to the satisfaction of the Steward Reviewer that a culture of Through-Life Management exists in the Integrated Project Team, measured against Through-Life Management Maturity Model.	All Teams to have a Through-Life Management culture equivalent to "Performing" on Through-Life Management Maturity Model.	All Teams to have a TLM culture equivalent to "Performing/ High performing" on Through-Life Management Maturity Model.	All Teams to have a TLM culture equivalent to "High performing" on Through-Life Management Maturity Model.

Equipment Capability Customer

The Through-Life Capability vision for the Equipment Capability Customer:

"A Through-Life Management Planning structure which exposes Whole-Life Costs in a way that enhances Balance of Investment judgement and Investment Approvals Board decisions".

Fundamental to this is agreement that:

a. Through-Life Management Plans are to become a key management tool in Integrated Project Teams.

b. Consideration of Through-Life Costs will form the financial basis of Business Cases at Main Gate.

c. Through-Life Costs are to inform the capital procurement programme Balance of Investment.

Action Plan milestones

May 2002	Joint Capabilities Board endorsed Paper "Whole-Life Costing in Capability Management: Realising the Vision".
Sep 2002	Investment Approvals Board Approval practices implemented.
Oct 2002	Equipment Plan 2003 Equity Models include a benefit criterion reflecting in broad terms the relative impact of Equipment Plan Options on Whole-Life Costs.
Feb 2003	Equipment Capability Customer role in defence-wide application of Through-Life and Whole-Life Costing established.
May 2003	Directorate of Equipment Capability-costed Through-Life Capability Area Plans exist.
July 2003	Joint Capabilities Board agree Through-Life and Whole Life Costing elements of Equipment Plan 2004 processes.
Nov 2003	Equipment Plan 2004 submitted with enhanced Whole-Life Cost awareness.
Mar 2003	Joint Capabilities Board to promulgate future strategy for Through-Life Costing.

Source: Ministry of Defence

Through-Life Management is a factor in key funding approvals, but scrutiny and approval requirements are loosely defined and the depth of consideration is unclear

2.39 The criteria used by the Department to scrutinise projects at the two key funding decision points in the acquisition cycle include whether there is a realistic plan for delivering and sustaining the requirement Through-Life and, overall, whether the investment represents value for money. Through-Life Business Cases should thus be supported by suitably mature, costed Through-Life Management Plans.

2.40 To assess whether Through-Life Management issues were fully considered in making investment decisions, we analysed 19 decisions (11 Initial Gate and eight Main Gate) made between January 2001 and December 2002 for projects valued at £400 million or more. The results showed that, while consideration of Through-Life Management was increasing, overall it remains low, with half referring to Through-Life Management Plans. Funding approval is not predicated on the achievement of a required level of Through-Life Management Plan maturity. In addition, whilst a checklist for scrutiny of Through-Life Management Plans exists, responsibilities and practice have not been established with sufficient clarity.

It is difficult to link examples of success to Through-Life Management practice

2.41 As part of our fieldwork, we consulted with Integrated Project Teams, the Equipment Capability Customer, Second Customers and industry to identify where Through-Life Management could be shown to have delivered military capability faster, cheaper or better.

2.42 **Figure 21 overleaf** summarises the outcome of our consultation. It includes some examples of good practice, notably the Destroyer/Frigate Capability Coherence initiative and the River Class Offshore Patrol Vessel, but it proved difficult to link successes directly to the application of Through-Life Management principles. Furthermore, a number of the examples are still aspirational or lack cost data. Whilst the absence of clear data makes it more difficult to identify successes, it does not necessarily imply lack of benefit.

21 Departmental examples of Through-Life Management successes

Provider	Benefit	Description	Impact
Precision Guided Bomb Integrated Project Team	Costs	Re-use of old in-service containers for bomb components.	Packaging for explosive/electronic items, to provide long-term protection from the environment and accidental damage can be expensive. Qualification procedures are significantly reduced and early indications are that £3 million can be saved at initial procurement and as much again during top-up buys later in life.
Tornado Integrated Project Team	Costs	Focus on optimising scheduled maintenance through the use of concurrent programmes to achieve greater efficiency. The overall scheduled servicing requirement on Tornado GR4 has been reduced.	Projected saving of £42 million over period Financial Year 2002-03 to Financial Year 2009-10.
Capability Manager (Information Superiority)	Costs	The Airborne Stand-Off Radar and Sentry programmes, as a result of the adoption of a through-life approach, are examining proposals such as common support with other aircraft types, shared support for specialist sub-systems, contractor logistic support, common pilot training, open system architectures and major upgrade programmes such as cockpit modernisation (with implications for flight crew numbers and equipment support costs).	To be determined.
Capability Manager (Information Superiority)	Time	The limited Acceptance of the Tornado Reconnaissance Airborne Pod system benefited from the full engagement of all parties. A holistic Line of Development approach was adopted (prime contractor and front-line crews under chairmanship of Customer 1).	Progress increased such that limited Acceptance and In-Service Date were declared on 20 September 2002 and the system was subsequently deployed on operations a mere eight months later.
Capability Manager (Strategic Deployment)	Time	The River Class Offshore Patrol Vessel project acquired capability through a lease arrangement, which produced savings as a result of a Contractor Logistic Support contract that places responsibility for upkeep and maintenance costs on the contractor. The vessels are designed for minimal manning thereby reducing Through-Life crew costs. There is also no requirement for disposal costs. Finally, the contractor has the flexibility to produce innovative platform solutions to the Department's User Requirements to speed construction.	The time taken from initial concept (March 2000) to expected delivery of the first vessel in service (February 2003) is significantly less than the likely timescale for a more traditional approach.
Capability Manager (Strategic Deployment)	Performance	The Destroyer/Frigate Programme Coherence Team was composed of representatives from the Equipment Capability Customer, Defence Procurement Agency, Defence Logistics Organisation and Second Customer and produced a programme for 2002-2032 fully costed in Whole-Life Cost terms and a new methodology for assessing the capability implications of different fleet/equipment mixes.	Future destroyer/frigate programme which will deliver capability more effectively.
Fleet-Wide Systems Integrated Project Team	Performance / Cost	Navigational Aids life extension.	Sustained capability long term and cut costs by £1.7million through direct use of Through-Life Management Plan.
Fleet-Wide Systems Integrated Project Team	Performance / Cost	Reduction of number of equipment solutions, numbers and likelihood of capability gap for small radars.	Reduced Whole-Life Costs by 35 per cent; eliminated long-term obsolescence issues.

Source: Ministry of Defence

Part 3

Recommendations for driving through the change to Through-Life Management

3.1 The first two Parts of this report have shown that the Department has introduced a range of initiatives that should help it to develop a Through-Life Management approach to the delivery of defence equipment capability. However, we found that Through-Life Management has yet to be fully embedded. In this Part of our report, we explore what more the Department can do to drive through the change to Through-Life Management and demonstrate its success in bringing about widespread improvements in the delivery of military capability.

The Department's approach to managing the change to Through-Life Management can be further developed

3.2 Part 1 of our report showed that there has been continuing high-level support for Through-Life Management, but that some members of the defence acquisition community are not yet clear about its definition or benefits. The Department could:

a) examine options to more clearly communicate the aims and benefits of Through-Life Management to everyone in the defence acquisition community;

b) make more explicit how Through-Life Management applies to the integration of all components of military capability, not just equipment;

c) explore how best to fully develop Through-Life Management as a Defence Change Programme under the auspices of the Change Delivery Group; and

d) further develop the Acquisition Three-Star Group to better embrace all those in the defence acquisition community involved in delivering defence capability, particularly the Second Customer.

3.3 The Department has developed a plan for managing the change to Through-Life Management and, with some further development, it could fully reflect good practice and form a coherent framework for managing all aspects of the change effort. The Department could:

e) examine the implications of aligning responsibility with authority for executing the plan;

f) clearly identify the resources necessary to progress the change programme, and align the provision of these resources and their management across the Department; and

g) develop metrics to provide clear and consistent measures of progress in implementing Through-Life Management across the Department and report progress to the Change Delivery Group, the Acquisition Three-Star Group and other interested bodies such as the Defence Management Board.

More proactive management of the development of the enablers of Through-Life Management is needed

3.4 Part 2 of our report showed that the key enablers of Through-Life Management were not fully in place. To fully develop the management tools and information sources to support Through-Life Management, the Department could:

h) ensure Integrated Project Teams develop comprehensive Through-Life Management Plans in line with the targets set;

i) make every effort to speed the implementation of the Whole-Life Cost programme and establish robust cost data for all projects to inform decision-making;

j) ensure that all members of the acquisition community involved in the development and ongoing review of Through-Life Management Plans have appropriate visibility of these plans;

k) give priority to increasing the compatibility of management information and financial reporting systems;

l) improve corporate management information on the likely timing of Integrated Project Team transition to facilitate better planning for the movement of teams, projects, personnel and funding;

m) ensure that all Integrated Project Teams produce comprehensive Transition Plans well in advance of transition; and

n) from the outset of projects, take forward ongoing work to examine options to base Integrated Project Teams at a single location throughout their lives.

3.5 To further develop the effectiveness of some mechanisms for engaging the defence acquisition community and promoting Through-Life Management behaviour, the Department could:

o) build on the new guidance on Capability Working Groups and continue to identify ways to improve the involvement of all members of the acquisition community;

p) clarify the desired outcomes from Capability Working Groups and satisfy itself that a consistent and coherent approach is being taken across the Equipment Capability Customer;

q) more clearly define the responsibilities of all members of the acquisition community in Through-Life Management, either by revising Customer Supplier Agreements or by developing alternatives such as the Responsibility Matrices in Through-Life Management Plans; and

r) examine the wider merits and implications of giving the Second Customer greater responsibility for the allocation of support funding.

3.6 To better measure the progress and success of Through-Life Management, the Department could:

s) develop a comprehensive and coherent set of targets for the implementation and conduct of Through-Life Management covering all parts of the acquisition community;

t) ensure the rigorous independent assessment of the maturity of Through-Life Management Plans;

u) place greater emphasis on tracking the success of Through-Life Management;

v) ensure suitably mature costed Through-Life Management Plans are a prominent and integral part of Business Cases; and

w) set levels for maturity of Through-Life Management approach and completeness of Through-Life Management Plans which should be achieved at Initial Gate and Main Gate.

Appendix 1 Study scope and methodology

Study scope

1   This study is the second in a planned series of three examining whether Integrated Project Teams are successfully enabling Smart Acquisition[11]. Specifically, it has addressed the question of whether the change to a Through-Life Management culture has been successfully implemented to enable effective delivery of UK military capability. The following issues were addressed:

■   whether the Department implemented the change to Through-Life Management in a coherent manner (Part 1); and

■   whether the key mechanisms to facilitate Through-Life Management are in place and working effectively (Part 2).

2   The remaining study in the series plans to address the following issue:

■   whether Integrated Project Teams have improved acquisition performance, examining the time, cost and technical performance of a sample of "Smart" projects managed by Integrated Project Teams and identifying the factors contributing to their performance.

Study methodology

Joint Review Group

3   At the preliminary study stage, we convened a joint National Audit Office-Department review group to ensure that we accurately reflected how Through-Life Management is intended to operate and to consult on appropriate methodologies. The group met several times during the full study to input expertise as fieldwork progressed.

Directorate Equipment Capability Deep Strike Case Study

4   Our fieldwork was undertaken with the focus on whether Through-Life Management is achieving effective delivery of military capability. It was not feasible to assess this across all 13 Directors of Equipment Capability within the Equipment Capability Customer and, in consultation with the Joint Review Group, we chose to focus on the Deep Strike capability area.

Integrated Project Teams: Deep Strike Capability Area (as at January 2003)
Conventionally Armed Stand-Off Missile
Future Offensive Aircraft System
Future Strategic Tanker Aircraft
Harrier
Joint Combat Aircraft
Maritime Airborne Surveillance and Control
Precision Guided Bomb
Tomahawk Land Attack Missile
Tornado

5   The capability area has nine Integrated Project Teams managing a range of projects at different points in the acquisition cycle and the Department agreed that it is broadly representative in terms of Through-Life Management mechanisms, stakeholder relationships and information flows.

Survey of Integrated Project Team Leaders

6   We carried out an electronic survey of the nine Integrated Project Team Leaders within the Deep Strike capability area to gain their perceptions and experiences of Through-Life Management in practice. The survey response rate was 100 per cent. The questionnaire covered the following issues:

■   the definition of Through-Life Management and its benefits;

■   the effectiveness of Through-Life Management Plans;

■   representation in Capability Working Groups;

■   the effectiveness of Customer Supplier Agreements;

■   the requirement for a Through-Life Management Plan at the Initial and Main Gate approval points;

■   transition between the Defence Procurement Agency and Defence Logistics Organisation; and

11   The first study, "Implementation of Integrated Project Teams", was published in March 2002.

- the impact of Through-Life Management in terms of cost savings, improved timeliness and enhanced capability performance.

7 The questions were predominantly "closed", with a choice of set responses, to allow for direct comparison and quick analysis. For additional context, all questions were supplemented with text boxes for comments and suggestions.

Review of Through-Life Management Plans

8 We reviewed all seven Deep Strike Through-Life Management Plans (relevant at the time of review in November 2002) for completeness against a set of criteria based on Departmental guidance on plan structure and contents. (The Tomahawk Land Attack Missile project Through-Life Management Plan was under internal review during our fieldwork). We looked to see whether the plans were populated in the six key areas of:

- Project Mission and Objectives
- Stakeholders
- Strategies
- Method/Acquisition Strategy
- Whole-Life Costs and Resources
- Evaluation of Success

9 Each section had a set of sub-criteria that formed a qualitative checklist against which each plan could be assessed for inclusiveness. Allowance was made for the fact that not all sub-criteria were applicable in all cases and a score was generated for each plan. The scores were then aggregated to give a percentage of completeness in each key area.

Stakeholder consultation letter

10 We identified stakeholder engagement in Through-Life Management as a key issue and, to gain further input, consulted a wide group of 105 people from across the defence acquisition community for their perceptions and experiences of Through-Life Management in practice. One-third sent written responses, which were collated in a spreadsheet. The group comprised all stakeholders of the nine Deep Strike Integrated Project Teams and the letter asked for their views on the following:

- whether Through-Life Management has been well defined;
- whether Through-Life Management is being applied as intended; and
- whether military capability is being managed Through-Life and delivered effectively.

Focus groups

11 In order to asses wider acquisition community engagement in Through-Life Management, we ran three professionally facilitated focus groups of key stakeholders - the Second Customer, Industry and the Defence Logistics Organisation - as part of a workshop hosted jointly with the Director General Smart Acquisition's team. Six people were present in the Defence Logistics Organisation group, five in the Second Customer group and eight in the Industry group and each group generated views, experiences and examples of Through-Life Management practice that were collated in a report. We received very positive feedback about the workshop from the participants, facilitators and Director General Smart Acquisition's staff.

Interviews

12 We conducted a number of interviews across defence acquisition:

Team responsible for developing Through-Life Management framework
QinetiQ
Whole-Life Cost Team
Procurement Development Group

Through-Life Management practice
Deputy Director Equipment Capability Deep Strike (1), (2) & (3)
Deputy Director Equipment Capability Underwater Battlespace
Deputy Director Equipment Capability Abovewater Battlespace
Assistant Chief of Staff Logistics LAND
Availability Steering Group Chair LAND
Availability Steering Group Chair STRIKE
Second Customer Pivotal Management 1 Group RAF
Availability Steering Group Chair FLEET

Through-Life Management Plan guidance
Procurement Development Group

Performance monitoring
Defence Procurement Agency Secretariat
Defence Logistics Organisation Headquarters

User Requirement Documents & System Requirement Documents
Equipment Capability Customer Secretariat

Owners of guidance
Directorate Deepening Smart Acquisition

Incremental Acquisition
Procurement Development Group

Approvals
Investment Approvals Board Secretariat
Directorate (Scrutiny & Analysis)

Transition
Defence Logistics Organisation Headquarters
Whole-Life Cost Team
Total Interoperability Team
Directorate Personnel

Acceptance
Procurement Development Group
Equipment Capability Customer Secretariat

In-service management
Defence Logistics Organisation Headquarters

Disposal
Defence Logistics Organisation Headquarters

Wider document review

13   We reviewed a large number of documents pertaining to all areas of the study. These included Through-Life Management framework documents, meeting minutes, action plans, Through-Life planning documents, external consultancy reports and Initial and Main Gate Business Cases.

Case Studies

14   To provide depth, focus and practical illustrations of the issues highlighted in our study, we examined several case studies from Integrated Project Teams and Equipment Capability Customer Directorates of Equipment Capability (summarised below) put forward to us by the Department. In all cases, we conducted one or more interviews and reviewed documentation where appropriate.

Survey of the Equipment Capability Customer

15   To gain a comprehensive picture of the operation of Capability Working Groups across the Equipment Capability Customer, we carried out a survey of the ten Directors of Equipment Capability not already covered in previous case study work. The questionnaire asked for information about numbers, structure, operation and Industry engagement and for comments about the usefulness of Capability Working Groups. The response rate was 100 per cent and the results were collated in a table.

Survey of Integrated Project Team Leaders that have transferred

16   The transition case study (see point 11 above) was supplemented by a short, structured survey of four Integrated Project Team Leaders who had undergone transfer from the Defence Procurement Agency to the Defence Logistics Organisation in the last two years. The sample was provided by the Department. We asked each Team Leader to rate the transfer of staff, data, management responsibility and stakeholder relationships on a scale of 1 ("disjointed") to 4 ("seamless") and provide reasons for the rating. The response rate was 100 per cent and the results were collated in a spreadsheet.

Issue	Integrated Project Team/Equipment Capability Customer area
Through-Life Management Plan	Tornado
	Watchkeeper
Customer Supplier Agreements	Tornado
User Requirement Documents	Precision Guided Bomb
Main Gate Approval	Next Generation Light Anti-Armour Weapon
Transition	Health Usage & Monitoring System
	C-17
Capability Working Groups	Directorate Equipment Capability Abovewater Battlespace
	Directorate Equipment Capability Underwater Battlespace
	Directorate Equipment Capability Deep Strike

Appendix 2 Glossary of terms

Acquisition Three-Star Group

The body that provides high-level direction for the implementation of Smart Acquisition, including Through-Life Management. It meets quarterly and is comprised of the Deputy Chief Defence Staff (Equipment Capability), the Deputy Chief Defence Logistics and the Deputy Chief Executive Defence Procurement Agency.

Approval Point

Either Initial Gate, at the end of the Concept Stage (the first stage in the acquisition cycle), or Main Gate, at the end of the Assessment Stage (the second stage in the acquisition cycle).

Capability Working Group

A stakeholder group responsible to a Director Equipment Capability for the development of strategy in their area, the consideration of options in the annual planning process, and the development of specific equipment options to meet capability gaps.

Change Delivery Group

The Group is a central Departmental group established to direct and manage change programmes across the Department. Led by the Secretary of State for Defence and the Second Permanent Under-Secretary, it seeks to ensure that the Department's major change programmes are mutually coherent, and that the change effort is concentrated on the highest priority projects.

Customer

The body to which the Integrated Project Team is answerable for meeting agreed cost and performance targets within agreed and approved resources. In the early project stages, the customer is the Equipment Capability Customer (Customer One), in the in-service stages it is the Second Customer.

Customer Supplier Agreement

An agreement between the customer and supplier, setting out the working relationship between them and recording other key project information such as deliverables required and performance measures and targets. There are two distinct types of these Agreements in use, covering acquisition and support. Such agreements will exist between the Director of Equipment Capability and each Integrated Project Team for the procurement stages of a project and should also be created between the Director of Equipment Capability and various elements of the Second Customer for the delivery of the five non-equipment components of capability.

Defence Acquisition Community

Describes the organisations and groups that have a stake in Through-Life Management and the provision of military capability. Within the Department these include the Equipment Capability Customer, Second Customer, Integrated Project Teams, Defence Logistics Organisation and Defence Procurement Agency. External to the Department is industry, with a stake as a supplier.

Defence Logistics Organisation

The new tri-Service logistics organisation formed on 1 April 1999 under the command of the Chief of Defence Logistics. The Organisation's Mission is to provide joint logistics support to the Armed Forces.

Defence Procurement Agency

An agency of the Department formed on 1 April 1999 replacing the Ministry of Defence Procurement Executive. It procures new equipment for the Armed Forces in response to approved requirements and provides other procurement-related services to its customers.

Director Equipment Capability

The single point of contact between the Integrated Project Team Leader and the Equipment Capability Customer, responsible for a defined area of capability. Manages the work of Capability Working Groups.

Dual Accountable

Describes those Integrated Project Teams and/or projects that belong to one organisation but are accountable to more than one budget holder. This usually occurs as a capability approaches the in-service phase.

Equipment Capability Customer

The customer prior to the point when equipment becomes available to the user and for upgrades to in-service equipment that reflect a change to the user's requirement.

Industry

Those companies that supply equipment and support and are identified as part of the defence acquisition community.

Initial Gate

A relatively low approval hurdle, between the Concept and Assessment Stages, intended to encourage early and full exploration of a wide range of options for meeting a particular capability.

Integrated Project Team

The body responsible for managing a project Through-Life. The Smart Acquisition Integrated Project Team is characterised by its "cradle to grave" responsibility, the inclusion of all the skills necessary to manage a project, and its effective and empowered leader.

Integrated Project Team Leader

The person with overall responsibility for the Integrated Project Team, and the line manager of all its core members. The Team Leader may have an extensive background in any one or more of the core Integrated Project Team membership areas, or the industry equivalent.

Investment Approvals Board

The Board considers approval of projects valued above £400 million prior to submission to Ministers. It comprises the Chief Scientific Advisor, Second Permanent Under-Secretary, Vice-Chief Defence Staff, Chief Defence Procurement and Chief Defence Logistics,.

Lines of Development

The term used to describe the six elements that must be brought together to deliver military capability to operational users. They are People, Force Structure and Estates, Sustainability, Training, Concepts and Doctrine, and Equipment.

Main Gate

An exacting approval hurdle, between the Assessment and Demonstration Stages. A Business Case at Main Gate should recommend a single technological and procurement option.

Maturity Model

The Model is defined as a tool to aid continuous improvement of Through-Life Management processes and plans. It enables self-assessment at individual project level or on a whole Integrated Project Team level against a set of criteria, which describe whether a project/team is "Beginning" (level 1), "Developing" (level 2), "Performing" (level 3), "High performing" (level 4) or "Excelling" (level 5) in Through-Life Management practice.

McKinsey

The consultancy firm that was employed by the Department in 1997-98 to examine procurement in the round. Many of their recommendations were taken forward into the Smart Acquisition framework and subsequent organisational changes.

Military Capability

An operational outcome or effect that users of equipment need to achieve.

Pascale

The Professor commissioned by the Equipment Capability Customer in Spring 2002 to conduct an organisational audit to identify what had been accomplished and what had still to be addressed in the organisation.

Procurement Development Group

The Procurement Development Group was established shortly after the Defence Procurement Agency's formation in April 1999 as an essential part of taking forward the Smart Acquisition Initiative. The Group contributes to the better delivery of projects within Acquisition and the wider Ministry of Defence, by capturing good practice and providing guidance; techniques; tools and training for project management excellence, defence standards and developments in procurement processes.

Resource Accounting and Budgeting

This describes the new accounting regime instituted across Government that measures resources consumed rather than cash spent. Resource Accounting commenced 1999-2000 and Resource Budgeting commenced 2001-2002.

Second Customer

The customer responsible for user and in-service aspects of the programme. The role is two-fold, with Single Service Chiefs undertaking the Core Leadership role in support of the Equipment Capability Customer, and the end users of equipment (primarily the Front Line and Training Commands) undertaking the Pivotal Management role, with responsibilities for specifying the in-service outputs required, negotiating Customer Supplier Agreements and monitoring Integrated Project Team performance.

Smart Acquisition

The programme of far-reaching reforms aimed at faster, cheaper and better acquisition and support of equipment.

Strategic Defence Review

A foreign policy-led strategic defence review to reassess Britain's security interests and defence needs and consider how the roles, missions and capabilities of our Armed Forces should be adjusted to meet the new strategic realities.

Through-Life Management

Through-Life Management has been defined as "an integrated approach to all Smart Acquisition process, planning and costing activities across the whole system and whole life of a project". It also encompasses a large cultural and process change within the Department.

Whole-Life Cost

The total resource required to assemble, equip, sustain and operate a specified military capability, at agreed levels of readiness, performance and safety. It comprises the costs to develop, acquire, own, operate and dispose or re-deploy defence equipment and property. It includes also the costs to recruit, retain and train military and civilian personnel as well as the costs of higher organisations and formations.

Whole-Life Cost Project Team

The Team, established in April 2001 and based in the Defence Logistics Organisation, to deliver the processes, tools, guidance and training to assist Integrated Project Teams and their stakeholders across the Department to take account of the true Whole-Life Cost of an equipment.

Source: Ministry of Defence/National Audit Office

appendix two