

## ASL and ITIL: powerful together

ITIL is generally regarded as the de facto standard for improving IT service management organisations. Partly due to the success of ITIL other models have been developed, such as ASL. The latter has been introduced into the market as a tool for the professionalisation of those organisations that specialise in the management, maintenance and/or enhancement of applications. This article examines the position of ASL and ITIL in relation to each other. It provides IT managers with adequate guidelines to enable them to make good decisions.

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### INTRODUCTION AND BACKGROUND

For many years now ITIL has been successfully implemented in computer centres, in organisations that provide services in the field of desktop and network management, and in those that adopt a comprehensive approach towards their IT services. In these organisations ITIL has emerged as *the* standard for IT service management. ITIL is less commonly used in the domain of application management. An important reason for this is that ITIL offers fewer common aspects for the concrete implementation of application management processes. It is for this reason that ASL has been developed. A book entitled *ASL: A framework for application management* states that ASL is a standard alongside ITIL. There is also a large group of IT professionals who see ASL positioned as a specific manifestation of ITIL. Only the odd person fails to see that ASL is entitled to exist in its own right. On the contrary, the added value of ASL is widely acknowledged. For example, this is evident in the increasing number of members and knowledge partners of the ASL Foundation. What is this added value? How should we position the various models in relation to Looijen's management domains?

In 2004 Part I of *ITSM Best Practices* dealt extensively with the position of ASL in relation to ITIL application management (Meijer, 2004). This article considers the position of ASL and ITIL in more general terms.

#### **Explanation of terms: application and technical infrastructure management**

What is meant by the terms, application and technical infrastructure management, is not unambiguous. If you were to conduct a survey in a meeting of IT professionals to establish what application management is, overall it would be said that it refers to either application development or to those activities which are required to keep applications running every day. The latter coincides with the processes in the ASL 'maintenance' cluster coupled with corrective maintenance of the application.

A similar question addressed to the same assembly concerning technical infrastructure management would elicit different answers. This is because people who are active in the field of IT service and infrastructure management view technical infrastructure management as a term for the domain within which they implement their service management processes (with the aid of ITIL). Technical infrastructure management is more likely to be viewed as a synonym for operational infrastructure management (operations management).

Systems administration is another term that is commonly used. Others interpret technical infrastructure management more widely: all operations through to and including strategic activities associated with the management of technical infrastructure.

The standard work on ASL (Pols, 2002) positions it as a framework for application management alongside ITIL. Within ASL the latter is described as a framework for technical infrastructure management. The determination of this position is derived from the ideas and books of Looijen and Delen (Delen, 1992). Looijen uses the following definitions (Looijen, 2004).

**Business information systems management<sup>1</sup> (BIM)** – business information systems management is responsible for maintaining the functionality of an information system. It is central to its use. Based on this general definition of tasks, BIM supports the use of functions, evaluates this and responds to deficiencies and new requirements that may produce modifications.

**Application management (AM)** – application management is responsible for maintaining application software and databases. As soon as modifications need to be implemented for maintenance purposes, application management is responsible for effecting and testing them. This also applies to the structure of databases.

**Technical infrastructure management<sup>2</sup> (TIM)** – technical infrastructure management is responsible for ensuring that an information system, which consists of equipment, software and data sets that constantly need to be available for use, can be operationalised.

However, ASL has a substantive view of application management, which differs from that which Looijen has designed in his threefold model. According to ASL, application management does not only comprise maintenance and enhancement of the applications, as postulated by Looijen, but also renovation, day-to-day maintenance and control, directing these activities and the determination of the future of applications and application management organisations. In this respect, the decision to refer to clusters of processes within ASL using the term 'maintenance', is not really convenient. Perhaps 'production' or 'operation' would have been a better term.

Confusion frequently occurs now.

ITIL defines application management as follows: 'Application management is the superset which describes the overall handling or management of the application as it goes through its entire life cycle. This life cycle encompasses both the application development phases and service management activities'. Hence it is a superset of application development and service management. ASL draws a distinction between application development, maintenance, enhancement and renovation. ITIL views enhancement as a subsequent cycle of application development.

One must therefore conclude that there is no consensus within the Dutch IT sector about the definition of terms such as technical and application management, and that the best practices referred to in the books on ITIL do not help by providing any solutions in this respect.

We, the authors of this article, cannot overcome this confusion concerning terminology, although we would certainly like to. However, we would like to recommend the following. It is vitally important that, whenever IT management processes are discussed, implemented or improved, all the parties concerned first need to agree on what the terminology they use is supposed to mean.

### THREE IT MANAGEMENT DOMAINS (LOOIJEN)

In the 1980s the management and organisation of information technology resources was still virgin territory. Together with Delen, Professor Looijen was one of the first people to publish about this topic in the Netherlands. In doing so, he went about his work very systematically. The first question that he asked, was what actually needed to be managed in IT. To this end, he itemised and ordered the information technology resources which were common at the time. Based on this structure, he mapped out various tasks, and their specific fields and areas – see Table 1. With assistance from

<sup>1</sup> In former publications (Looijen, Vander Pols) often called Functional management, in this and other publications for the sake of simplicity also referred to as Business Information Management or Information Management

<sup>2</sup> In former publications (Looijen, Vander Pols) often called Technical management

Mintzberg, these areas of tasks were situated within an organisational context (Delen, 1992). This approach produced a consistent model which is made up of the resources and the specialist expertise that is required to manage them. The way in which they are structured is designed to draw together similar types of skills and expertise in relation to the resources which are to be managed. This entails making an implicit fundamental choice in favour of an organisational structure.

Looijen identifies various specialisms within IT management: application, technical (infrastructure) and functional (business information systems) management. His definitions of these domains are presented in the box entitled *Explanation of terms*. He describes these types of management based on the differentiation of tasks within these three domains (Looijen, 2004).

He employs the Mintzberg logo in order to provide an insight into the relationship between these three types of management and the administrative levels within management. This threefold model is presented in Figure 1.

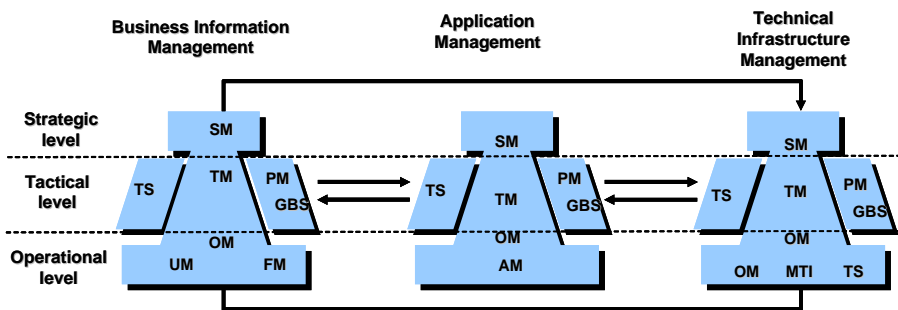


Figure 1 – Threefold management model

Strategic Level	Tactical Level	Operational Level
<b>Generic</b> SM: Strategic Management	<b>Generic</b> TM: Tactical Management TS: Technical Support PM: Personnel Management GB: General Business support	<b>Generic</b> OM: Operational Management  <b>Business information management</b> UM: Use Management FM: Functionality Management  <b>Application Management</b> AME: Application Maintenance & Enhancement  <b>Technical infrastructure management</b> OM: Operational Management MTI: Maintenance of Technical Infrastructure and Operational Direction TS: Technical Services

Table 1 – Fields and areas of tasks according to Looijen

## ITIL

ITIL (OGC, 2000-2004) is the de facto standard for IT service management. So what is IT service management?

An IT service is defined as follows in the ITIL glossary:

A described set of facilities, IT and non-IT, supported by the IT service provider that fulfils one or more needs of the customer and that is perceived by the customer as a coherent whole.

## IT Service Management: Best Practices

Customer perception is at the heart of this definition. The service is defined on the basis of customer requirements and is perceived to constitute a coherent entity. This service may be made up of components which are related to IT and those which are not. As such, the definition of the service is left to the IT service provider and may consist of, amongst other things, providing technical facilities, applications, maintenance or a combination of them. Service management comprises those activities which are aimed at providing services which accommodate the requirements stipulated by customers in this respect.

The details provided in the *ITIL Service Support* and *ITIL Service Delivery* books confines the scope of service management to the provision of 'live' services and hence to applications that are part of 'live applications software'. This is explicitly stated in the *ITIL Application Management* book (OGC, 2002) by drawing a distinction between the service management stages of deployment, operation and optimisation, and the application development stages of specification, design and construction.

ITIL seeks to provide guidelines for the planned and controlled presentation of IT services. The OGC website contains FAQ which probably present the most illuminating principles:

Q: How should ITIL be pronounced?

A: There is no correct way in which to pronounce ITIL.

What applies to the pronunciation of ITIL, also applies to its interpretation and implementation. There is no clear-cut 'correct' method. The manner in which the various processes need to be structured, depends on the organisation, more specifically, its strategy, clients, service portfolio and the latter's structure. ITIL sets out what processes must be controlled for the purposes of providing professional services. It describes the aims for important areas requiring attention and the activities required in order to achieve them. Although the books present examples of procedures and instructions, they need to be adjusted to accommodate the circumstances prevailing in each organisation. The manner in which these procedures and instructions are to be set out, will depend on the structure and culture of the organisation concerned, and the way in which it is managed.

Throughout the history of ITIL the following two phenomena have had a significant impact on the development of its body of ideas:

- the limited availability of course;
- a group of 'early adaptors'.

The fact that to date courses and examinations have only been available for the modules, *Service Support* and *Service Delivery* (including security management), has led to a situation where to most interested people ITIL seems to be confined to these two modules.

Apart from the focus on *Service Support* and *Service Delivery*, the group of 'early adaptors' consisted mainly of managers who were responsible for the management of technical infrastructure. This led to a situation in which the substance of discussions and the development of case histories chiefly covered this domain.

As a matter of fact, the authors can also state on the basis of their own experience that from the very outset ITIL courses in the Netherlands were based on comprehensive service management including making applications available for use and maintaining them, even though that was not covered by the 'official texts' in the ITIL books.

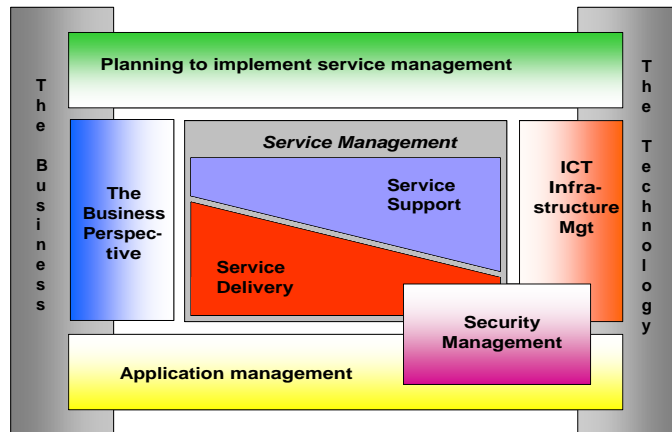


Figure 2 – The current ITIL publications (Source: OGC)

In 2000 OGC started to publish an up-date of the ITIL set of books to replace the old one. Figure 2 presents the relationship between these current ITIL publications.

At present the core of ITIL consists of the following seven books:

- *Service Support*;
- *Service Delivery*;
- *Planning to Implement Service Management*;
- *Application Management*;
- *ICT Infrastructure Management*;
- *Security Management*;
- *Business Perspective: The IS View on Delivering Services to the Business*.

### Structure of ITIL processes

The following structure is used to describe the generic processes:

- aims (why);
- activities (what);
- responsibilities (who);
- implementation (how).

In the first instance the 'why' is set out for each process. This entails stating the aims of the process in explicit terms. This is the most important part of the description. Performance indicators are established on the basis of these aims. They can be used to test the results. After all, without an explicit aim it makes no sense to structure a process and it is impossible to provide any direction for it.

Once the aims have been explicitly stated, those activities which are required in order to achieve them, are itemised. These activities record what needs to be done in order to achieve the aims that have been set. Like the aims, these activities can be described in generic terms. In essence the activities which are required in order to achieve an aim, remain identical irrespective of the number of people who are involved or the items which are covered by these activities. Apart from descriptions of generic processes (general or otherwise) and activities, more detailed operations may be described,

which go more deeply into the implementation of these processes in practice. ITIL does the same thing in its series of books. These examples, checklists and the like are largely concerned with the management of infrastructure.

Level	Application and Degree of Detail	Subject
WHY	generic	policy of service management processes
WHAT	generic and general	definition of service management processes implementation of service management
WHAT	generic and detailed	definition of service management activities for technical infrastructure management
WHO	specific	determination of TCRs for service management processes
HOW	specific	implementation of processes at the level of procedures and instructions

	Defined by ITIL
	Directions for implementation in one's own organisation

Table 2 – Scope of ITIL (TCR – tasks, competencies and responsibilities)

If an organisation is to operate properly, it also needs to be clear who is responsible for performing these activities. Responsibility for the performance of activities and their results are set out in procedures. It is obvious that the link between the responsible official and the activities concerned cannot be established generically. This link depends on the structure, operation and management of the organisation in question. Nevertheless, the need to take an initial step towards this has led to the introduction of roles.

Once the relevant responsibilities (the 'who') have been recorded, the same may also be done with regard to the manner in which the activities which have been described, need to be performed (the 'how'). The latter is set out in the form of instructions and depends on both the organisation, and the infrastructure and tools that are used. As in the case of the procedures, it is therefore also impossible to describe these instructions generically. Descriptions of procedures and instructions cannot be viewed in any way other than as examples applicable to a fictitious organisational structure. In order to ensure that the processes are monitored while operating within an organisation specific procedures will have to be drawn up for each organisation. A delineation of the scope of ITIL can be found in Table 2.

## ASL

The following problems occur all too frequently in practice:

- applications fail to keep pace with business processes;
- the significant expenditure involved in application management cannot be accounted for and costs cannot be forecast;
- the poor quality of applications leads to problems in the business processes;
- the gap between the various management domains and between them and application development produces difficulties in relation to performance and/or continuity;
- there is insufficient comprehension of the difficulties which occur in the field of application management;
- the parties responsible for management do not understand each other, because they speak a different language.

ASL – the Application Services Library (Pols, 2002) – was developed in order to resolve such problems.

ASL seeks to professionalise application management not only within an organisation but also as a factor which promotes standardisation across organizations. ASL consists of a framework of processes and a library of best practices in the field of application management. Here application management is viewed in a broad context. It covers all processes and activities which are required in order to ensure that the functionality and operation of the relevant applications (the software) remain up-to-date throughout the life cycle of any supportive business processes (see the definitions at the beginning of this article).

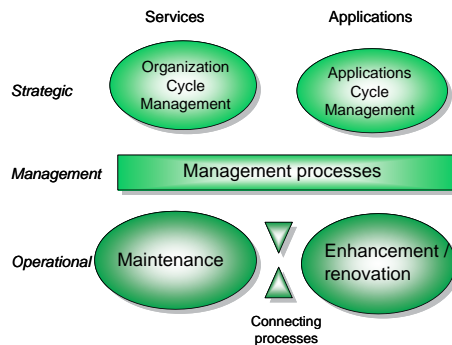


Figure 3 – The ASL framework in general terms

Within this framework (see Figure 3), which is described in detail elsewhere (Meijer-Veldman, 2001), a distinction is drawn between the following six process clusters:

- those managerial maintenance processes which ensure that the applications do what they are required to do, every day;
- enhancement and renovation processes as part of which applications are modified in response to malfunctions and on the basis of new needs and requirements
- connecting processes which regulate, amongst other things, transfers from day-to-day management and maintenance to enhancement and vice versa;
- management processes;
- two strategic process clusters as part of which the IT service organisation determines strategy for the support of business processes, on the one hand, and on the other, the future outlook for itself.

ASL envisages that application management focuses on the provision of support for business processes by information systems throughout the life cycle of these processes.

A distinction may be drawn between two points of view as part of this approach. The first is the perspective of 'support for business processes by information systems'. This entails keeping the relevant information systems operating (ASL uses the term, information system, somewhat incorrectly as a synonym for application) and ensuring that they support an organisation's day-to-day operations, hence the ongoing provision of service based on sound arrangements with regard to service levels, the restoration of agreed service levels as soon as possible if any aberration is detected, the prevention of malfunctions, and the facilitation of new services through a timely response as an IT service provider. Its focus is thus on service, and that which needs to be provided. As a rule, when it comes to the extent of such service reference is made to 10% to 20% of overall application management expenditure (Smalley, 2004). What we are largely concerned with here are processes which are known from the service management ones within ITIL (service support and delivery, and security management).

The second point of view concerns ‘the lifecycle of the business processes’. Organisations evolve, and their surroundings and markets change. In order to be able to continue functioning at their peak their support applications consequently need to keep pace with this growth. Amongst other things, this entails modifying these applications to accommodate current and future technical and functional requirements. As a rule, application-oriented processes account for the bulk of application management expenditure (in line with ASL).

Level	Usability and degree of detail	Subject
WHY	generic	policy of service management processes as part of application management
		policy of maintenance, enhancement and strategy in relation to applications
WHAT	generic and general	definition of service management processes as part of application management
		implementation of ASL
WHAT	generic and detailed	definition of service management activities for application services
		definition of application maintenance and enhancement activities
		direction of application management organisation
		determination of future of applications
		determination of strategy for the relevant IT department or organisation
WHO	specific	determination of tasks, competencies and responsibilities for application management processes
HOW	specific	implementation of processes at the level of procedures and instructions

	Defined by ASL
	Directions for implementation in one's own organisation

Table 3 – Scope of ASL

Just like ITIL, ASL describes the aims of the relevant processes (hence, the ‘why’). ITIL describes service management processes with the aid of generic aims and activities. When describing activities (the ‘what’), ASL focuses more specifically and in greater detail on the application domain. A delineation of the scope of ASL may be found in Table 3.

## ASL, ITIL AND LOOIJEN’S THREEFOLD MODEL

Looijen developed his theory of threefold management from the bottom up. He grouped IT tasks and places them in clusters based on a particular area. Based on a detailed situational model he then observed that there are three specific types of management. He then allocated these areas of tasks to these three types of management. In doing so, Looijen employed Mintzberg’s logo, a generic organisational model. At a later stage Looijen set aside space in his publications for service management processes to a limited extent. They are depicted as an alternative structure of the activities which he had identified.

ITIL has been developed from the top down independently of Looijen and the provision of services is at its core. In the process an attempt was made to answer the questions, ‘Why?’ and ‘What?’ and to provide directions to IT organisations to determine the ‘who’ and the ‘how’. In this respect the requisite processes were described and were assigned examples where necessary. Consequently, ITIL has been developed with service management as its scope. However, ITIL’s service management principles may be applied to service-oriented tasks in all three of Looijen’s management domains.



ASL acknowledges the existence of the threefold management identified by Looijen and is specifically designed for the application management domain. However, this marks the end of any substantive aspects they have in common. ASL incorporates a process model which may not be compared with the threefold one employed by Looijen on a one-to-one basis. By way of a supplement to ASL and ITIL, a third model has been developed, namely, BiSL, which stands for Business Information Services Library. Within Looijen's threefold model of management BiSL covers the business information systems management (BIM) domain and, in addition to operational tasks regarding managing the functionality and supporting end-users, also includes information management.

Each of the Looijen, ITIL and ASL models have been developed from a different perspective. Fortunately, all of the different models serve a common purpose and this is to help provide proper service to end users.

## ASL, ITIL AND IT SERVICE MANAGEMENT

In the section on ITIL we have noted that IT service management includes all services relating to the structure and management of an ICT organisation, so as to ensure that the latter operates with a closer focus on clients and services.

The new ITIL book entitled *Business Perspective: The IS View on Delivering Services to the Business* (OGC, 2004) is explicitly based on comprehensive service management, the presentation of technical infrastructure, the facilitation of the supply of information with the aid of applications, and the accompanying support may constitute part of a service that can be described and provided. Such a service is always the subject of the processes described in the service support and delivery modules.

This means that the underlying principle of ITIL is that IT services are provided within all three management domains and are then offered to a client in a comprehensive form. The level of service perceived by an end user represents the sum of the degree of service of business information management, application management and technical infrastructure management, to use the terminology of ASL and Looijen. On the other hand, if the definitions of ITIL are employed, this level of service comprises the sum of service, operational, application and business information systems management. Which service management processes can be distinguished from one another and what they entail, are set out in the books, *Service Delivery*, *Service Support* and *Security Management*, which are part of the ITIL series.

	ITIL	ASL	BiSL
Aim	Tool for structuring IT service management	Tool for structuring and improving application management. NB. According to the definition of ASL, this also includes service management processes.	Tool for structuring and improving business information systems management.
What is managed	All the resources required for the provision of an IT service with the emphasis on generic service components and the technical infrastructure	Applications	Information provisioning
Target group	IT managers	IT managers	Information managers and system owners
Approach	Based on a series of processes it provides the main points and structure for structuring and establishing a service organisation	With the aid of a framework it provides the main points and structure of the processes that are to be established	With the aid of a framework it provides the main points and structure of the processes that are to be established
	Using best practices it offers practical support for structuring service management	Using best practices it offers practical support for structuring application management	Using best practices it offers practical support for structuring business information management
Level	Tactical and operational processes and strategic activities	Strategic, managerial and operational processes	Strategic, managerial and operational processes
Availability	<a href="http://www.itil.co.uk">www.itil.co.uk</a>	<a href="http://www.aslfoundation.org">www.aslfoundation.org</a>	<a href="http://www.bisl.nl">www.bisl.nl</a>

Position	International de facto standard	Standard in the Netherlands, growing in Belgium, Germany and the United Kingdom	Growing in the Netherlands
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Table 4 – Comparison of ITIL, ASL and BiSL

The first two ITIL books referred to above are often considered to be the core ones and many people ignore the rest. The remaining books are read far less. Neither of these core books deal with the application management domain explicitly or extensively. Frequently, the examples are confined to generic service or technical infrastructure components. As a result, application managers may recognise themselves in general terms but not in the details of the material that is described.

In general terms, ITIL can therefore be readily used for service management processes within the application management domain, albeit also within that of business information systems management. After all, processes such as incident, service level and change management are similar in general terms whatever the domain in which one is active. Yet, as soon as one considers the detailed activities which one needs to perform, and how one is to do so, a supplement to ITIL is most welcome. In the case of application management it is set out in ASL, and when it comes to business information management, in BiSL. Table 4 compares ITIL, ASL and BiSL in respect of the following aspects: aim, scope, what is managed, target group, approach and level. BiSL is added in order to cover all three of Looijen's domains.

ASL has been developed further than ITIL in relation to some aspects. In addition, ITIL covers a number of subjects in great detail, which ASL deals with to a more limited extent.

Apart from the scope of ITIL and ASL, Table 5 also presents that of BiSL in relation to the three management domains. The rows are based on the primary breakdown of 'why', 'what', 'who' and 'how' taken from Tables 2 and 3. The purple sections indicate which subjects are addressed by ITIL. The table clearly shows that service management in accordance with ITIL can be used in all three domains for the alignment and general structuring of service management processes. Where more detailed structuring occurs (referred to in the table as 'performance'), examples taken from the relevant domain are particularly relevant. The new models offer significant added value in this respect. The ASL additions have been entered (in light green) in the application management column, while those of BiSL are presented (in light blue) in the right-hand column.

## FAQ

We encounter and have encountered similar questions in the course of the development and implementation of ASL. Apart from questions concerning position, many substantive questions are also raised, questions about the differences, similarities and interaction of ASL and ITIL. Answers are provided to a number of these questions below.

### ***How are ASL and ITIL positioned in relation to each other?***

ASL views application management as a unique, separate discipline unlike ITIL, which treats it as a combination of service management and application development. This represents a fundamental difference in approach. ASL includes part of the service management processes that ITIL has identified. The terms used for these processes by ASL were sourced from ITIL prior to 2000. In addition, ASL also includes other processes for the enhancement and renovation of applications. They resemble the processes for application development that are referred to in *ITIL Application Management* but have not been further developed. However, within ASL these processes have been developed, particularly for maintenance purposes and not so much for new builds.

ASL consequently incorporates more information than ITIL about the specific activities which are important for structuring service management processes for application management.

Where applications are created, implemented and enhanced within an organisation, it is useful to examine *ITIL Application Management* (ITIL AM).

		Application Management Domain	Technical Infrastructure Management Domain	Business Information Management Domain
WHY	generic	Policy of service management processes Determination of future support of business by IT	Policy of service management processes Determination of future support of business by IT	Policy of service management processes Determination of future support of business by Information
WHAT	generic and general	Definition of service management processes Implementation of service management	Definition of service management processes Implementation of service management	Definition of service management processes Implementation of service management
WHY and WHAT		Policy and definition of maintenance, enhancement and strategy in relation to applications	Policy and definition of infrastructure management processes	Policy and definition of information management processes
WHAT	generic and detailed	Definition of service management activities for application services Definition of application maintenance and enhancement activities Direction of application management organisation Determination of future of applications Determination of strategy for the relevant IT department or organisation	Definition of service management activities for technical infrastructure management Definition of infrastructure management activities Definition of security management activities Determination of future infrastructure Determination of strategy for the relevant IT department or organisation	Definition of service management activities for business information management Definition of activities concerning changes in the needed information Management of ICT organisations Determination of future information needs Determination of strategy for the demand organisation
WHO	specific	Determination of tasks, competencies and responsibilities for application management processes	Determination of tasks, competencies and responsibilities for service management processes	Determination of tasks, competencies and responsibilities for business information management processes
HOW	specific	Implementation of processes at the level of procedures and instructions	Implementation of processes at the level of procedures and instructions	Implementation of processes at the level of procedures and instructions

ASL additions      ITIL      BiSL additions

Table 5 – Scope of ITIL, ASL and BiSL in relation to the three domains of management

Within ITIL AM extensive attention is devoted to points which need to be dealt with in the course of application development and enhancement in order to ensure that the relevant applications can be managed properly in a production environment. In many organisations the supply of applications which can be readily managed and maintained, is not yet viewed as characteristic of the quality of any product that is to be supplied, even though applications nevertheless constitute an essential part of the components on which IT services which are to be provided, are based, and consequently play an important role in the continuity of business processes. More can be learned about ITIL AM and its relationship with ASL in Meijer (2004).

***Why do ASL and ITIL break down levels differently (directional, managerial and operational as opposed to strategic, tactical and operations) and processes appear to be assigned to different levels?***

This question can be traced back to the different choices that were made in respect of the design of the two models. Within ASL it was decided to categorise processes in accordance with their aim. ASL employs the following three levels of processes: operational (day-to-day), managerial (with a horizon extending to no more than one year) and strategic (with a horizon extending to approximately three years). ITIL also employs a classification system based on operational (short term), tactical (medium term) and strategic (long term). Confusion sometimes arises, because a different classification system was decided on when ASL was designed.

Based on the former iteration of ITIL, some operational processes in the ASL management cluster are tactical in their nature, such as continuity, availability and capacity management. As it happens, the new version of ITIL states that these processes incorporate both tactical and operational elements. ASL positions processes at the operational level, because parts of them are performed every day, such as performance monitoring.

In view of the fact that time, financial and quality management are vitally important to service organisations, the processes which support the structure of this control, are explicitly included in the managerial layer of the model. Within ITIL the planning and control aspects are included in the processes themselves. ITIL does not view quality management as a separate process.

***What has happened to problem management within ASL?***

Problem management has not disappeared within ASL but has been incorporated into the quality management process. The ASL process of quality management has a broad scope and focuses on the quality of products, of the production process, of the quality assurance system, and the quality of the relevant organisation. This has been incorporated into quality management within ASL in view of the fact that structural problems will have an impact on the quality of the services provided. It is then possible to initiate action within the quality management process in order to effect a structural improvement in the provision of services.

***What is the relationship between software control and distribution (ASL) and release management (ITIL)?***

Within ASL close interaction occurs between the ASL processors of change management, and software control and distribution. If software control and distribution is properly structured, it actually constitutes a 'technical' variant of change management. The transition from a release to a subsequent stage is also visible within software control and distribution. Software control and distribution controls the physical relocation of software items from development to testing to approval and then to production.

The ITIL process of release management focuses mainly on ensuring that not only the software is ready when production is to commence, but also the requisite hardware and any non-technical activities. In addition to the actual commencement of production, release management also includes activities involving planning, design, construction, testing and implementation. As such, it appears to be similar to the enhancement / renovation cluster of ASL, although the emphasis lies elsewhere. This is because ITIL does not or barely deals with those activities that need to be performed in order to modify the software. Any modified software for which ASL has defined processes within the cluster of

enhancement / renovation, is approved within the DSL and is consequently included in the relevant release. ITIL places the emphasis on the roll-out. A great deal of attention is devoted to the manner in which efforts are made to ensure that the correct version of any software is distributed to the appropriate clients and desktops. ASL's process of software control and distribution deals with the physical makeup of a release, ensuring that the appropriate versions are placed in the DTAP environments (DTAP – development, testing approval and production) and hence also the roll-out of the software. Compared to ITIL, ASL only provides a summary indication of all of the activities and points requiring attention which are involved in the roll-out of any new software release.

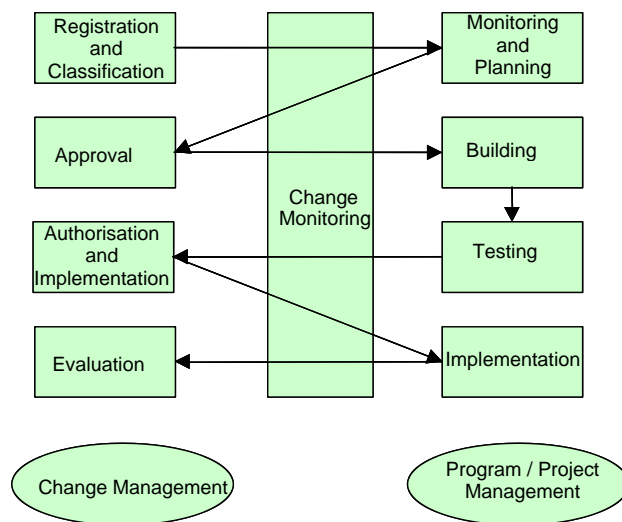


Figure 4 – Relationship between change management and program and project management based on ITIL (Source: OGC)

### **Change management appears to differ in the case of ITIL and ASL. What is the situation?**

In the *Service Support* book ITIL actually treats applications as a black box, just like a printer or a server. According to the *Service Support* book, ITIL confines itself to the 'live' version of an application (the production version).

Within ITIL the modification of Configuration Items does not occur as part of change management but is directed by the latter. Guidance occurs with the aid of project management. However, ASL considers it important to describe the build, because changing applications accounts for more than 20% of the total IT expenditure over the life cycle of an information system (Smalley, 2004).

Within ITIL the performance of an impact analysis constitutes part of the change management process. This is not the case within ASL. The reason for this is that ASL treats impact analysis in the case of application management and is so important and complex, that it positions it as a separate process (impact management) and not as an activity which is part of change management.

### **What is the outlook for collaboration spanning the various domains?**

Ultimately, all of the management domains identified by Looijen (technical infrastructure management, application management and business information management) serve the same purpose: to ensure optimum IT support for business processes throughout their entire life cycle. By separating the different types of management and ensuring that the relevant processes are closely linked across them, it is possible to achieve an exceptionally flexible but manageable provision of services. Models

such as ITIL, ASL and BiSL can make a contribution to the achievement of a common goal. They can help to ensure the uniform structure for the interfaces linking the various managerial organisations, they can make a contribution to the development of a common language and terminology framework, and they can make IT more manageable as a whole. This will manifest itself in the efficient and effective provision of services.

### ***Which processes need to work well together?***

All of the processes that depend on interaction with other management domains to ensure proper operation and good results, need to work together as closely as possible. Here we are concerned with those managerial processes which are directed towards ongoing daily operations, fielding service calls, making modifications, and strategic business IT alignment. This interaction is dealt with in greater detail in an article on effective IT management (Meijer & Meijers, 2002).

### ***Should processes with similar names be incorporated into a single process?***

A number of processes that occur within both ASL and ITIL, are identical at the generic level. Nevertheless, they differ to varying degrees at a detailed level (instructions) because the objects that are managed are different. Depending on the level within an organisation on which one wishes to describe processes and make them uniform, a decision may be made as to whether these processes should be merged. It is crucial that processes in the various management domains are properly interfaced and coordinated. However, there are a number of objections against the comprehensive merger of managerial processes across the various domains, namely:

- the types of management often do not occur in the same place, even regularly in different organisations;
- the managerial organisations frequently do not have a one-on-one relationship.

The separation of responsibilities makes it easier to direct management. This is also why Meijer and Meijers conclude that overall management is as effective as possible, if the management domains cooperate where necessary and operate independently where possible.

### ***Is the ASL service team identical to the ITIL service desk?***

In view of the fact that the IT services ultimately provided are achieved through the interplay of business information management, technical infrastructure management and application management, close interaction is required between the various management domains.

According to ASL the closest possible collaboration is achieved by creating a service team in which representatives of the various management domains are brought together. This service team is a platform for collaboration, consultation and coordination covering staff within the various management domains, and it can simultaneously function as a single point of contact for clients. The ITIL service management philosophy coincides with the considerations on which the service team is based.

The ITIL service desk is regarded as a single point of contact (SPOC), focuses mainly on the end users of a client who requires assistance, and also serves as an end user's gateway to the other ITIL processes. The ASL service team is therefore not the same as a service desk. Nevertheless, a service desk manager may be a member of a service team.

***Should an organisation confine itself to a single model?***

Neither ASL nor ITIL is a goal in itself and this therefore renders any theoretical discussion less interesting. They are tools which developed in practice. Most added value can be drawn from the two standards by employing them as reference models. If an organisation is starting out by structuring its application management processes, ASL will provide more guidelines. If only a few processes are to be structured, those aspects covered by ITIL AM will certainly offer added value. It is also advisable to consider other aspects of ITIL all the time in so far as they are applicable, such as the service management processes.

However, if an organisation has already embarked on application management based on ITIL processes, it would be wise to compare them to the relevant ASL processes as well.

**SUMMARY**

The IT management discipline has developed further in recent years. Looijen's threefold model has been important for the development of management in the Netherlands. In addition, the development and implementation of ITIL has been very significant for the entire IT service management field. In particular, the service management principles, goals and primary activities of the processes identified by ITIL can be widely employed. Neither application management activities nor business information systems management are specifically described in ITIL. Neither does ITIL application management deal with the manner in which applications need to be managed and maintained. As a result, application and information managers cannot adequately recognise their roles within ITIL and no specific models have been developed for either of these domains.

In the meantime ASL has acquired a position as a tool for the professionalisation of application management. BiSL now needs to demonstrate its value in relation to business information systems management. ITIL is a powerful tool for the implementation of service management principles and for the overall introduction of service management processes in all IT organisations. ASL and BiSL deal with the activities which are specific to their domain, in greater detail and cover a number of processes which receive no attention within ITIL, such as those for the enhancement of applications and information management. The three models were developed in practice to complement each other. For this reason, they can easily be used together despite having different underlying principles.

This article provides answers covering the most important points that have generated confusion in the market. In practice every organisation has had to contend with different types of management to a greater or lesser degree. The ITIL, ASL and BiSL models are not a law unto themselves. Moreover, they all seek to achieve the same goal: to ensure that IT provides optimum support for business processes, ITIL and ASL (overlapping at a general level) on the supply side and BiSL on the demand side of IT services.

There is a challenge facing IT managers who wish to improve their IT management processes in order to make the appropriate decisions. We hope that we have helped them in this respect through this article. Both on their own and in combination, ITIL and ASL can both make a major contribution to the improvement of IT management.

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