

# Core Scheme Requirements

The TickIT*plus* scheme

Version 1.2.0 Release



*IT Quality Management  
and Certification*

ISO 9001  
ISO/IES 20000  
ISO/IEC 27001  
PAS 754

ISO/IEC 15504  
ISO/IEC 12207  
ISO/IEC 15288

**ITIT**  
International  
TickIT*plus*  
Association

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Review by ITA

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## Abbreviations

ITA	International TickIT <i>plus</i> Association
URL	Universal Resource Locator
ISO	International Standards Organization (aka International Organization for Standardisation)
IEC	International Electrotechnical Commission
CSR	Core Scheme Requirements (this document)
CB	Certification Body
BPL	Base Process Library
PRM	Process Reference Model
PAM	Process Assessment Model
IT	Information Technology
BPLB	Base Process Library Baseline
IMS	Integrated Management System
IPS	Implemented Process Sample
PA	Process Attribute
FI	Fully Implemented
LI	Largely Implemented
PI	Partially Implemented
NI	Not Implemented
NYI	Not Yet Implemented
BP	Base Practice
ACI	Assessment Coverage Index
CL	Coverage Level
NPTS	Number of people with the TickITplus scope
NP	Normalised Processes
NIPC	Number of implemented processes checked in confirmation mode
NIPE	Number of implemented processes checked in exploration mode
NS	Normalised Effort
LA	Level assessed
NAH	Number of assessment hours

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## 1 Introduction

This document specifies the Core Scheme Requirements (CSR) for undertaking an accredited TickIT*plus* assessment which satisfies the ISO/IEC 17021-1 audit requirements and follows the principles of ISO/IEC 15504-2 for conducting capability assessments. [REF000010]

The scheme uses ISO 9001 as the primary requirement standard and, as such, provides formal certification to ISO 9001 as a minimum. Additional requirement and reference standards can be added to provide a wider certification scope if desired. The scheme can be used by organizations internally, in which case certification to ISO 9001 cannot be claimed without an external assessment by an accredited certification body (CB). [REF000020]

TickIT*plus* provides five levels of certification. The lowest level is Foundation, which is not capability assessed, then Bronze, Silver, Gold and Platinum, which are capability assessed. [REF000030]

This document is structured to follow the logical flow of certification activities, from the scope determination in Section 2 to post-assessment activities in Section 9. As many of the general activities can be dependent on the nature of the assessment being undertaken, Section 10 provides details on the allowable level of tailoring for each type of assessment. [REF000040]

This document forms one element of the scheme documentation set, which is shown in Appendix A. An on-line change request mechanism will be available for proposing changes to the TickIT*plus* scheme documentation. Changes will be reviewed by the International TickIT*plus* Association (ITA) and if approved will be incorporated into a subsequent release of the TickIT*plus* scheme documentation. [REF000050]

The term ‘audit’ already has specific meanings, so the term ‘assessment’ is used to describe the approach to TickIT*plus* certification. TickIT*plus* assessments are carried out by one or more registered Assessors who may be assisted by registered Practitioners. Registration requirements are defined in the scheme document *TickITplus Requirements for Assessors and Practitioners*. [REF000060]

Where specific scheme rules are described, these are indicated by a code in square brackets, e.g. [CSR0001]. [REF000070]

Each paragraph is annotated with a reference number to facilitate change requests, as shown at the end of this paragraph. [REF000080]



## 2 Scope determination

This Section deals with identifying and establishing the Scope of a TickIT*plus* assessment. [REF000090]

Three scope domains exist: [REF000100]

- 1 the organizational scope, which covers the full range of the organizational activities undertaken at all locations [REF000110]
- 2 the certification scope, which covers those activities and locations that are required to be covered under the selected Requirement Standard(s) (e.g. ISO 9001, ISO/IEC 20000-1, etc.) certification [REF000120]
- 3 the TickIT*plus* scope, which covers those activities and locations that are required to be addressed by the TickIT*plus* assessment [REF000130]

Appendix B provides additional information and guidance on TickIT*plus* scopes. [REF000140]

The certification scope may be either the same as the organizational scope or a subset of the organizational scope. The TickIT*plus* scope may be either the same as the certification scope or a subset of the certification scope. [REF000150]

The method and structure for documenting the scope statements shall be defined by the Certification Bodies (CBs) [CSR0010]. [REF000160]

TickIT*plus* has defined a number of sets of processes, called Scope Profiles that are required to achieve TickIT*plus* certification. [REF000170]

The Scope Profiles are: [REF0000180]

- 1 Information Management and Security [REF000190]
- 2 Service Management [REF000200]
- 3 Systems and Software Development and Support [REF000210]
- 4 Project and Programme Management [REF000220]
- 5 Corporate Strategy Planning and Management [REF000230]
- 6 Legal and Compliance [REF000240]
- 7 Product Validation, Quality and Measurement [REF000250]
- 8 IT Systems Engineering and Infrastructure [REF000260]

Further details of the Scope Profiles are given in Appendix C, Table 6. [REF000263]

Appendix D (see Table 9) details the mapping between the Scope Profiles and the TickIT*plus* defined processes in the Base Process Library (BPL). [REF000270]

For the majority of users the defined Scope Profiles provide a consistent set of processes against which to achieve certification for the mainstream requirement standards; however new Scope Profiles may be identified to meet future needs. [REF000273]

As ISO 9001 is the core standard and applicable in all cases, the scope being requested shall represent products or services being offered to customers [CSR0015]. Therefore, if standards such as ISO/IEC 27001 (and possibly ISO 22301 in the future) are required, a Scope Profile representing the products or services must also exist. To include ISO/IEC 27001, the Information Management and Security Scope Profile must be selected and unless the product or service being offered by the organization is in this field another Scope Profile must be adopted. [REF000277]

A new Scope Profile shall consist of all Type A processes and those Type B/C processes needed to satisfy the particular situation identified. These process types are described in Section 3.1. The use of a new Scope Profile shall be approved by the ITA before use [CSR0020]. [REF000280]

Additional requirement standards, such as ISO 22301, and reference standards such as IEC 61508, may be incorporated into the TickIT*plus* scheme in the future. [REF000290]

### 3 TickITplus components

There are three main components of the TickITplus scheme, the BPL, the Process Reference Model (PRM) and the Process Assessment Model (PAM). [REF00300]

These are discussed in the following Sections. [REF000310]

#### 3.1 Base Process Library

A fundamental principle of the TickITplus scheme is the use of a process model to describe what activities should be undertaken. ISO/IEC 15504-2 requires a PRM to exist as part of the so-called process dimension. However, it would not be possible for the TickITplus scheme to define a single PRM that could satisfy all potential organizational situations. For this reason, TickITplus has created a generic set of processes known as the BPL from which organizations select the most applicable processes to create an organization-specific PRM suited to their activities. Processes are selected by choosing applicable Scope Profile(s) and any additional Type C processes. [REF000320]

This section details the requirements and construction of the BPL adopted by the TickITplus scheme. [REF000330]

The TickITplus BPL comprises 40 processes (see Appendix D) that are sufficient to cover the majority of organizations working in the IT sector. Various existing standards, in particular ISO/IEC 12207 and ISO/IEC 15288, along with elements of the requirement standards, have been used to create the BPL processes. [REF000340]

Within the BPL, the processes are grouped into six process categories (Table 1). [REF000350]

Table 1: Process categories [REF000355]

Process category	Coverage
Organizational processes	Top-level and organization-wide activities
Project processes	Activities related to setting up and running projects or programmes
Technical processes	The more technical activities with a bias towards IT requirements
Agreement processes	Contractual, procurement and supply-related activities and requirements
IT-specific processes	Activities that are specifically IT related
Maturity processes	Activities specifically related to quantitative measurement and improvement and that tend to build on other related processes elsewhere in the library

Each process is characterized as follows:[REF000360]

- Type A: the ‘mandatory’ processes that are necessary for compliance with ISO 9001 and are required in all Scope Profiles. [REF000370]
- Type B/C: the ‘scope-dependent’ processes that are required to satisfy the Scope Profiles, the requirement and reference standards, and the stated certification scope statement(s). When required to meet the scope, they

become Type B processes, and are treated in the same way as a Type A process. If they are not directly required, then they become Type C processes, and are treated as supporting processes and may be included in an assessment when the organization considers it of benefit. [REF000380]

- Type M: these are termed ‘maturity’ processes and are required only for the Gold and Platinum levels. [REF000390]

Each process definition comprises: [REF000400]

- the process name [REF000410]
- a unique identifying reference [REF000420]
- the process type [REF000430]
- the process category [REF000440]
- a process purpose statement [REF000450]
- one or more process outcomes (core and supplementary) [REF000460]
- one or more base practices (linked to a process outcome) [REF000470]
- one or more input and/or output work products (linked to a base practice) [REF000480]
- one or more requirement or reference standard cross-references (linked to a base practice). [REF000490]

Outcomes are defined as core if their base practices refer to ISO 9001. Outcomes are supplementary if their base practices refer to additional requirement or reference standards: see Appendix D (Table 10, Table 11 and Table 12). [REF000500]

The BPL is defined and maintained by ITA, and will be updated as a result of feedback, improvements and enhancements. ITA will issue progressive updates to the BPL as new BPL Baselines (BPLB). [REF000510]

Major changes in requirements to the BPL are released as different versions, with minor changes being released as revisions. Version changes relate to significant changes of the BPL content or associated requirement standards. Revision changes relate to minor changes to BPL content. When a new BPL is released, ITA will indicate which Scope Profile(s) is impacted. [REF000520]

The organization shall use the latest BPLB applicable to the Scope Profile needed by the organization within the timescales allocated for adopting the latest BPLB [CSR0030]. [REF000525]

The structure of the BPL, example BPL processes and further explanation of the BPL versioning is given in Appendix D. [REF000530]

### 3.2 Process Reference Model

The fundamental objective of the BPL is to facilitate the generation of the organizational PRM which is a key component of TickIT*plus*. [REF000540]

All organizations shall develop and maintain an organizational PRM [CSR0040]. [REF000550]

The PRM provides a mapping between the BPL processes required to satisfy the organization's TickIT*plus* scope and the processes defined in the organization's Integrated Management System (IMS). This does not mean that there has to be a one-to-one mapping. In practice, there may be a many-to-many mapping between the BPL processes and organizational IMS processes. The minimum requirement is that, for each BPL process required by the selected Scope Profile(s) and additional Type C processes, there shall be at least one mapped IMS process [CSR0050] . [REF000560]

For the purposes of clarification, the BPL processes are referred to as generic processes, and the organizational processes as defined processes. [REF000570]

There are two levels to consider in completing the mapping of processes between the BPL and PRM. These are: [REF000580]

- the processes themselves, which are the fundamental assessment objects and are the subject of the capability ratings [REF000590]
- the process outcomes (typically one, but there could be more), which are the key objectives of each process and contribute to the demonstration of the process purpose. [REF000600]

The PRM shall demonstrate how the organizational defined processes, procedures and work products satisfy the base practices and work products of the selected BPL processes [CSR0060]. [REF000610]

In constructing an IMS that satisfies the requirements of the BPL Scope Profiles(s), the organization must ensure that the requirements of the selected certification standards, including as a minimum ISO 9001, are fully covered. [REF000615]

The information required in the PRM for the selected BPL processes shall be as follows [CSR0070]: [REF000620]

- BPL process identification, name, type or category [REF000630]
- the outcome that is addressed [REF000640]
- the base practice being addressed [REF000650]
- the mapping to the organizational IMS defined processes, procedures, work instructions, work products, etc., that satisfy the BPL requirements [REF000670]

Other information can be included as needed by the organization, such as the process owner, the review period, etc. [REF000680]

The PRM, as a whole, shall be uniquely referenced, version controlled and shall include an amendment history [CSR0080]. [REF000690]

Examples and further guidance on the construction of the PRM are given in Appendix E. [REF000700]

### 3.3 Process Assessment Model

The third component of TickIT*plus* is the PAM and this is derived from the organizational PRM. The PAM provides a detailed framework which records the

TickIT*plus* assessment and describes the evidence sampled to demonstrate the implementation of the defined processes. [REF000710]

The PAM shall include one entry for each of the organization’s defined process in the PRM [CSR0090] . [REF000720]

The implementation of a defined process is referred to as an implemented process. Implemented processes are evident in work groups and the set of all work groups used to demonstrate the implementation of the organization’s processes is called the Implemented Process Sample (IPS). The results of the IPS shall be recorded in the defined process PAM entry against process attributes (PAs) to the selected level [CSR0100] . [REF000730]

PAs and the associated generic practices are based on those defined in ISO/IEC 15504-2, and shall be used to assess the defined processes using the IPS [CSR0110] . [REF000740]

The PAs at each of the five levels are listed in Table 2. [REF000750]

Table 2: Process attributes [REF000755]

Level	Process attribute		Generic practice
Foundation	PA 1.1	Process Performance Attribute	GP 1.1.1
Bronze	PA 2.1	Performance Management Attribute	GP 2.1.1 to GP 2.1.6
	PA 2.2	Work Product Management Attribute	GP 2.2.1 to GP 2.2.4
Silver	PA 3.1	Process Definition Attribute	GP 3.1.1 to GP 3.1.5
	PA 3.2	Process Deployment Attribute	GP 3.2.1 to GP 3.2.6
Gold	PA 4.1	Process Measurement Attribute	GP 4.1.1 to GP 4.1.6
	PA 4.2	Process Control Attribute	GP 4.2.1 to GP 4.2.5
Platinum	PA 5.1	Process Innovation Attribute	GP 5.1.1 to GP 5.1.5
	PA 5.2	Process Optimization Attribute	GP 5.2.1 to GP 5.2.3

Further details of the process levels, PAs and associated generic practices are given in Appendix I. [REF000760]

The information contained in the PAM for each assessment shall be as follows [CSR0120] : [REF000770]

- general assessment information: [REF000780]
  - assessment title [REF000790]
  - assessment date [REF000800]
  - registered Assessor and assessment team members [REF000810]
  - BPLB used to generate the PRM [REF000820]
  - PRM version used to generate the PAM [REF000830]
- for each defined process PAM entry: [REF000840]
  - unique identification, including name, type and unique reference [REF000850]
  - for each required process outcome: [REF000860]

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- title (from BPL process information) [REF000870]
- references to any process-outcome-specific nonconformities and notes [REF000880]
- for each IPS work group: [REF000890]
  - indication of the assessment mode to be used, i.e. confirmation or exploration (see Section 7.2.1) [REF000900]
  - confirmation that the base practices, work products and, when included, generic practices have been checked [REF000910]
  - any findings, including positive or negative observations, concerns or potential nonconformities [REF000920]
  - characterization of the IPS (all work groups) at the outcome (and attributes for Bronze and above) level [REF000930]
- overall characterization of the defined process attributes (note PA1.1 represents the defined process outcome(s)) [REF000940]
- overall characterization of the maturity level. [REF000960]

A PAM shall be produced for all TickIT*plus* assessments other than for surveillance or special assessments [CSR0130]. [REF000970]

Example PAMs for the Risk Management Process are given in Appendix F. [REF000980]

## 4 Assessment Strategy document

There is a need to record various items of information related to conducting TickIT*plus* assessments, and these shall be documented in the Assessment Strategy. [REF000990]

The Assessment Strategy shall cover as a minimum [CSR0140]: [REF001000]

- the organizational scope, including the type of work, locations and technology [REF001010]
- the certification scope [REF001020]
- the TickIT*plus* scope [REF001030]
- the version of the Base Process Library being used [REF001035]
- the number of people covered by the TickIT*plus* scope [REF001040]
- the number and typical size of work groups (see Appendix G for an explanation of work groups) [REF001050]
- the TickIT*plus* level sought [REF001060]
- the selected Scope Profile(s) [REF001070]
- the use of Type C processes (if any) [REF001080]
- the number of defined processes (when known) [REF001090]
- critical processes (for Gold and Platinum levels only) [REF001100]
- an explanation of any implementation of the defined processes that may impact the effectiveness of the assessment [REF001110]
- the approach to implementing and monitoring improvements. [REF001120]

The Assessment Strategy shall be produced, reviewed, approved and maintained by the organization [CSR0150]. [REF001130]

The registered Assessor undertaking the assessment shall review and accept the Assessment Strategy at each assessment. [CSR0160]. [REF001140]



## 5 Organizational improvements and assessments

This Section deals with organizational improvements and assessments. [REF001150]

### 5.1 Improvements

Improvements are a key component of both ISO 9001 and TickIT*plus*. The Improvement Process promotes proactive monitoring, by both the organization and its CB, of improvements planned and delivered and is therefore defined as a key Type A process. [REF001160]

The Type A improvement process shall be reviewed at all routine assessments or if it is the subject of a special assessment [CSR0170]. [REF001170]

Quantifiable improvements are a requirement at Gold and Platinum levels, with the mandatory introduction of the two maturity processes, MAT.1 at the Gold level and MAT.2 at the Platinum level. When in the scope, these shall be reviewed at each assessment [CSR0180]. [REF001180]

### 5.2 Internal assessments

TickIT*plus* requires that an internal assessment programme is sustained at, or above, the assessment level being sought for certification. At Foundation level the internal assessment programme can be based on the normal approach to internal audits, and is not covered further in this document. [REF001190]

For capability levels, the internal assessment programme shall be based on the TickIT*plus* principles, incorporating the use of a PAM-style approach (see Section 3.3) [CSR0190]. [REF001200]

The following staffing rules shall be applied [CSR0200]: [REF001210]

- the internal assessment team shall consist of two or more team members [REF001220]
- the internal assessment shall be led by a registered Practitioner at or above the level of assessment being conducted with team members being Practitioners. [REF001230]
- the skills and competencies of the team shall be appropriate to the assessment being conducted [REF001233]
- conflicts of interest shall be considered and appropriately addressed. [REF001237]

The validity of internal assessments shall be reviewed by the registered Assessor [CSR0210]. [REF001240]

## 6 Certification prerequisites

At the point of application for certification, an organization shall provide a completed Assessment Strategy to the CB [CSR0220]: [REF001250]

The CB shall use the Assessment Strategy to determine the assessment effort required and the skills necessary to fully cover the requirements for the assessment [CSR0230]. [REF001260]

Entry into the TickIT*plus* level structure shall be permitted at any level, with agreement between the organization and the CB [CSR240]. [REF001270]

For capability levels, the organization shall have assigned at least one registered Practitioner or Assessor (see the TickIT*plus* document *Requirements for Assessors and Practitioners*), either directly employed or subcontracted at, or above, the level being sought, to be responsible for TickIT*plus*-based improvements and assessments [CSR0250]. [REF001280]

Certification under TickIT*plus* shall be in accordance with ISO/IEC 17021-1, including the definition and raising of nonconformities [CSR0260]. [REF001290]

## 7 Pre-assessment activities

Three main activities shall occur prior to conducting any assessment. These are the Documentation and PRM Review, Assessment Planning and the Assessment Readiness Review [CSR0270]. [REF001300]

The level and content of these activities will depend on the nature of the assessment being considered. [REF001310]

### 7.1 Documentation and Process Reference Model Review

This activity involves a complete review of the documentation required to plan the proposed assessment to ensure that the organization will be in a position to undertake the assessment as required. [REF001320]

The review can be undertaken on-site or remotely, as deemed appropriate by the CB, but, if undertaken remotely, the rationale shall be documented [CSR0280] . [REF001330]

The review shall be undertaken by the registered Assessor who will lead the assessment and include the following [CSR0290]: [REF001340]

- check that the PRM and Assessment Strategy comply with the Core Scheme Requirements and selected requirement standards [REF001350]
- ensure that an active Improvement Plan is in place [REF001360]

A report shall detail the results of the Documentation and PRM Review, and include as a minimum [CSR0300]: [REF001370]

- the date and location of the review [REF001380]
- the identity of the registered Assessor [REF001390]
- the identity of the organization's registered Practitioner (at capability levels) [REF001393]
- the version status of all the documentation reviewed, including the BPLB used [REF001397]
- identified nonconformities [REF001400]
- the recommendation to proceed with the next stage of assessment or reasons for non-recommendation. [REF001410]

No more than 6 months shall elapse between a recommendation to proceed and the start of the assessment activities [CSR0310]. [REF001420]

Concessions to the 6 month rule shall only be made by the CB, and shall be documented [CSR0320]. [REF001430]

The need for a Documentation and PRM Review is dependent on the assessment type (see Section 10). [REF001440]

## 7.2 Assessment Planning

The purpose of Assessment Planning is to formally plan, schedule and resource the assessment activities. Assessment Planning shall identify the IPS and create the initial PAM [CSR0330]. [REF001450]

All assessments shall be planned and documented in an Assessment Plan [CSR0340]. [REF001460]

Assessment Planning can be undertaken either on-site or remotely as deemed appropriate by the CB but, if undertaken remotely, the rationale shall be documented [CSR0350]. [REF001470]

While Assessment Planning can start at any time, it shall only be finalized once there has been a successful Assessment Readiness Review (see Section 7.3) [CSR0360]. [REF001480]

Normally, the assessment shall be planned by the registered Assessor, who will perform the assessment. If the registered Assessor does not plan the assessment, then they shall be given sufficient awareness of and ability to adjust the Assessment Plan prior to the assessment taking place. This shall be authorized and documented by the CB [CSR0370]. [REF001490]

Note: Section 10 provides options for Assessment Planning depending on the assessment type. [REF001500]

The Assessment Strategy, Improvement Plan and Assessment Reports (if they exist) shall be used for Assessment Planning [CSR0380]. [REF001510]

The assessment shall be led by a registered Assessor at or above the level being assessed [CSR0390]. [REF001520]

If a provisional Assessor is allocated to lead the assessment, then they shall be supervised by a TickITplus Approved Reviewer (see the TickITplus document *Requirements for Assessors and Practitioners*) [CSR0400]. [REF001530]

Note: In practice the reviewer would need to be a registered Assessor so that in the event of difficulties, the reviewer could take over and complete the assessment. [REF001535]

An Assessment Plan shall be prepared, including the following [CSR0410]: [REF001540]

- the name of the organization being assessed [REF001550]
- the date and locations of the assessment [REF001560]
- the TickITplus scope, Scope Profile(s) and additional Type C processes [REF001570]
- the TickITplus level being sought [REF001580]
- the Assessment Lead and team members (and Reviewer, if used) [REF001590]
- the BPLB reference, organizational PRM and assessment PAM versions [REF001600]

- the Assessment Strategy identification and version [REF001610]
- the description and coverage of the assessment mode(s) (see Section 7.2.1). [REF001620]
- the schedule of assessment events, reviews, meetings, interviews, etc. [REF001630]
- the logistics for the assessment. [REF001640]

The Assessment Planning activity can be conducted at the same time as the Documentation and PRM Review. [REF001645]

### 7.2.1 *Assessment mode*

An assessment can be conducted using one of two particular modes: confirmation or exploration, or a combination of them both. This is known as the assessment mode. [REF001650]

The processes to be confirmed and those to be explored shall be identified during Assessment Planning and recorded in the PAM [CSR0440]. [REF001655]

#### *Confirmation mode*

The aim of the confirmation mode is to reduce the amount of on-site assessment time by allowing the organization to prepare, in advance, the identification of evidence to support the IPS. The assessment team can then progress more quickly, as the evidence would not need to be located during the assessment. [REF001660]

A risk does exist, however, that the evidence will not accurately reflect practice. This risk is mitigated by requiring the registered Practitioner to verify the evidence prior to submission to the assessment team, and for the assessment team to corroborate and confirm the evidence by interview with the personnel involved in the IPS, e.g. work groups used to demonstrate the implementation of processes. [REF001670]

All processes that are assessed in the confirmation mode shall be supported by interviews involving a minimum of two team members, of which one shall be from the CB. [CSR0450] . [REF001675]

The organization gathers supporting evidence of the IPS, which shall be verified against the PRM by a registered Practitioner prior to a formal assessment, and records shall be retained [CSR0420] . [REF001680]

It is noted that a Practitioner is not mandatory at the Foundation level, and, consequently, the confirmation mode is only available if a registered Practitioner is employed or contracted by the organization. [REF001690]

#### *Exploration mode*

In contrast to the confirmation mode, the exploration mode aims to reduce the amount of preparation time required by the organization. Here, the assessment team will require significantly more on-site assessment time, as they will need to enquire about the IPS and, once understood, will then need to seek evidence of

compliance. This evidence may not always be readily available, and, therefore, time must be allocated to accommodate any potential delays. [REF001700]

There are no explicit rules for the exploration mode as this mode reflects current audit practice. [REF001710]

### *Combined mode*

It is also possible to conduct the assessment using a combination of the two modes at the process level. Note that mixing the confirmation and exploration modes at the base practice level shall not be permitted [CSR0430]. [REF001720]

There are many reasons why one or other of the modes might be chosen or required, and it is the responsibility of the registered Assessor to ensure that the correct assessment mode has been selected. For example, in some situations, the organization may have implemented a PRM but feel that it is uncertain about the evidence that would support the implementation, and therefore choose the exploration mode. Alternatively, clients of the organization may require that the assessment be conducted in the exploration mode or specify that some of the included processes must be explored. [REF001750]

### *7.2.2 Implemented Process Sample requirements*

It is very difficult to fully, and therefore accurately, define rules for the sampling required, due to the wide range of potential organizations that could adopt TickITplus. However, the most important aspect is that an appropriate IPS is taken to provide confidence that the organization's IMS covered under the TickITplus scheme is implemented effectively, including requirements for improvements. [REF001760]

There is a balance between organizational coverage of the IPS and the effort and logistics required to undertake an effective assessment. This balance involves the total number of people covered within the TickITplus scope, the number of people represented by the IPS and the amount of effort involved by the assessment team (from both registered Assessors and Practitioners). [REF001770]

The people covered by the IPS must be compared with the number of people covered by the total TickITplus scope, to give the coverage level. The Assessment Coverage Index (ACI) can then be calculated between the coverage level and the assessment effort in days. [REF001780]

In planning the assessment, the following calculation shall be performed and shall be within the stated acceptable range provided by ITA in effect at the time of the assessment [CSR0460]. [REF001790]

Note: ITA will state acceptable ranges once a suitable baseline of data has been collected. [REF001800]

Exceptions to these limits can exist, although in such cases approval by the CB shall be gained and a full justification shall be documented [CSR0470]. [REF001810]

The Assessment Coverage Index calculations are detailed in Appendix G. [REF001820]

Market forces will play an important role in defining the right balance between coverage and effort. The ACI shall be declared on the TickIT*plus* supplementary datasheets [CSR0480]. [REF001890]

The following rules shall be applied as a starting point: [REF001900]

- ISO/IEC 17021-1 governing the requirements or competency, consistency and impartiality of audit and certification shall be followed [CSR0490]. [REF001910]
- All in-scope processes shall be considered against all work groups included in the IPS and shown in the PAM [CSR0503]. [REF001917]
- Where a process is not applicable to a work group a short justification shall be provided in the PAM and the process marked N/A [CSR0507]. [REF001920]

Table 14 in Appendix G provides guidance on times to conduct assessments of process which encompass all the activities necessary to complete the on-site assessment activities, e.g. meetings, interviews, documentation reviews, consolidation, characterization, rating and reporting. [REF001930]

Examples of calculating the ACI are given in Appendix G. [REF001940]

These times have been prescribed using the best available information. The times will be periodically reviewed and refined through statistical analysis and in order to achieve this, the following information shall be submitted back to ITA by the CBs following an initial or renewal assessment [CSR0510]: [REF001950]

- the Scope Profile used and any additional Type C processes [REF001960]
- the number of implemented processes checked in confirmation and the number of implemented processes checked in exploration [REF001970]
- the level being assessed [REF001980]
- the number of people within the TickIT*plus* scope [REF001990]
- the number of IPS work groups [REF002000]
- the number of people covered by the IPS [REF002010]
- the total number of sites covered by the TickIT*plus* scope [REF002020]
- the number of sites included in IPS [REF002030]
- the number of assessment hours (i.e. start to finish for the registered Assessors and Practitioners participating in the assessment team) – note that this does not include the effort by the organization or Practitioners in preparing or supporting the assessment, or supervisory time if a TickIT*plus* reviewer is involved [REF002040]
- the number of people in the assessment team. [REF002050]

### 7.2.3 Assessment resources

The identification of Assessors with appropriate skills is determined by the make-up of the proposed certification scope in terms of the Scope Profiles covered in Section 2, and by the TickIT*plus* document *Requirements for Assessors and Practitioners*. The following rules shall apply when allocating assessment resources [CSR0520]: [REF002060]



- for each requirement or reference standard included in the certification, at least one external qualified registered TickITplus Assessor in that standard shall be allocated to the assessment team. [REF002070]
- each defined Scope Profile included in the assessment shall be covered by at least one external qualified registered TickITplus Assessor having that related Scope Profile as a specialist area [REF002080]
- if any technical specialists are assigned to the assessment, they shall only be used in an advisory role and shall be employed or contracted by the CB. [REF002090]

The minimum team size for each assessment type is specified in Section 10. [REF002100]

It shall be permissible to use registered Practitioners as part of the assessment team, with the following provisions [CSR0530]: [REF002110]

- they cannot lead the assessment [REF002120]
- there cannot be more registered Practitioners than there are CB registered Assessors [REF002130]
- they cannot raise nonconformities [REF002140]
- they cannot conduct an interview in isolation [REF002150]
- they shall be registered (see the TickITplus document *Requirements for Assessors and Practitioners*) at the level being sought [REF002160]
- their skills shall be commensurate with the assessment scope [REF002170]
- they must be employed by or directly contracted by the organization [REF002180]
- they must be approved by the registered Assessor leading the assessment. [REF002190]

The allocation of resources and their associated skills shall be documented [CSR0540]. [REF002200]

### 7.3 Assessment Readiness Review

Once there has been a recommendation to proceed, the next step is to conduct one or more Assessment Readiness Reviews. [REF002210]

The purpose of the Assessment Readiness Review is to verify that the organization has prepared adequately for the full assessment, and the following shall be confirmed [CSR0550]: [REF002220]

- internal audits (Foundation level) and internal assessments (Capability levels) against the PRM are being undertaken [REF002230]
- the Improvement Plan is being implemented and monitored [REF002240]
- corrective action is being undertaken within acceptable timescales [REF002250]
- for the exploration mode, the people necessary to provide information during the assessment will be available [REF002260]
- for the confirmation mode, the required evidence has been identified, collected and verified by the organization's registered Practitioner [REF002270]
- the logistics for the assessment have been arranged [REF002280]
- quality record keeping is being applied, and records will be available [REF002290]



- no significant changes have occurred since the Documentation and PRM Review or Assessment Planning activities. [REF002300]

The Assessment Readiness Review shall be undertaken by the registered Assessor, who will lead the assessment, either on-site or remotely [CSR0560].  
[REF002310]

Assessment Readiness Reviews shall be documented, and include as a minimum [CSR0570]: [REF002320]

- the date and location of the Assessment Readiness Review [REF002330]
- the identity of the registered Assessor and the organization's registered Practitioner (for capability levels) [REF002340]
- changes from previous assessment preparation activities – note that if significant changes have occurred, consideration should be given to undertaking further Documentation and PRM Review and Assessment Planning activities [REF002350]
- the recommendation or otherwise to proceed with the full assessment. [REF002360]

The Assessment Readiness Review may be combined with the Documentation and PRM Review, or undertaken as part of Assessment Planning at the CB's discretion.  
[REF002370]

If the assessment is being completed fully in the confirmation mode, there will be a need to ensure that the preparations towards collecting together the IPS evidence pack is progressing in such a way that the basis for calculating the assessment time remains valid. [REF002380]

If the assessment is to be conducted purely in the exploration mode, then there will be no prior need to check that the preparation of evidence is progressing. However, there will be a need to ensure that all the logistics, interview notifications, staff commitment to participate, etc., have been formally arranged. [REF002390]

Section 10 provides details of any specific tailoring of the Assessment Readiness Reviews required by assessment types. [REF002400]

## 8 Conducting the assessment

There are six types of assessment defined in TickIT*plus*. These are: [REF002410]

- initial assessment [REF002430]
- surveillance assessment [REF002440]
- renewal assessment [REF002450]
- change of scope assessment [REF002460]
- change of level assessment [REF002470]
- special assessment. [REF002480]

A change of scope assessment or a change of level assessment can be undertaken at the same time as a surveillance assessment or renewal assessment, in which case the minimum requirements of the combined assessments shall apply [CSR0580]. [REF002490]

As part of any assessment, the following activities shall be undertaken as a minimum [CSR0590]: [REF002500]

- opening meeting [REF002510]
- process verification [REF002520]
- team agreement on the findings (where a team is involved) [REF002530]
- completion of the PAM and team agreement (other than for surveillance or special assessments) [REF002540]
- report generation [REF002550]
- closing meeting. [REF002560]

General rules associated with these are given below, and for each specific assessment in Section 10. Appendix H provides more background information and guidance. [REF002570]

### *Opening meeting*

The content, style and approach shall be in accordance with established CB practices based on ISO/IEC 17021-1, and as a minimum include [CSR0600]: [REF002580]

- the introduction of the registered Assessor, the assessment team and other participants [REF002590]
- the confirmation of the scope statements, the Scope Profile(s), Type C processes if included and the grading sought [REF002600]
- the confirmation of planning arrangements, e.g. the IPS, schedule details and logistics [REF002610]
- an explanation of the reporting method and the grading of findings. [REF002620]

### *Process verification*

This is part of the on-site assessment where the defined processes are verified against the PAM by examining the IPS at the desired capability level using the agreed assessment mode (i.e. confirmation, exploration or a combination). [REF002630]

Evidence shall be obtained and recorded to demonstrate that the requirements of the PAs up to and including the level sought have been checked as part of the assessment [CSR0610]. [REF002640]

In verifying the requirements of the PAs, full coverage must be given to the requirements of the selected requirement standards. [REF002645]

If any process cannot be demonstrated because the IPS work group has not reached that point in development of the work or examples have not arisen to date, a record shall be kept [CSR0620]. [REF002650]

All in-scope processes shall be demonstrated in at least one instance [CSR0625]. [REF002655]

Every process in the scope shall be demonstrable across all the IPS work groups examined during the assessment [CSR0630]. [REF002660]

While it is possible to use the process outcomes as an indication of process effectiveness at all levels, the organization shall formally demonstrate achievement of process outcomes at level 3 and higher [CSR0635]. [REF002665]

### *Team agreement on the findings (where a team is involved)*

At some point, or at multiple points, during the on-site assessment activities, the assessment team needs to consolidate all the individual assessment team member results and findings into a final PAM and set of formal findings. [REF002670]

As the final results of the assessment depend on the results of the IPS, which may have been assessed by different assessment team members, the team agreement on findings shall involve all assessment team members [CSR0637]. [REF002680]

Note that this does not prohibit the formal findings being consolidated and created by less than the full team, but the full team must have an opportunity to agree or disagree with the formal findings prior to them being presented to the organization. The following approach shall be undertaken [CSR0640]: [REF002690]

- The finding to characterization mapping given in Table 3, shall be used to characterise each in-scope PA for each work group in scope. Note the characterization of PA1.1 (the Foundation level) involves characterising the process outcome(s). If a process has more than one in-scope outcome, the combined characterization for PA 1.1 is the lowest individual in-scope outcome characterizations. [REF002700]
- The same in-scope PA characterization in each work group shall be combined into an in-scope PA for the organization based on team judgement of the individual findings and risks involved for each work group. [REF002710]
- If there are multiple Defined Processes the in-scope PA characterizations shall be combined into a single in-scope PA based on team judgement of the individual findings and risks involved for each of the Defined Process results. [REF002720]

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- The TickIT*plus* process capability levels given in Table 4 and the organizational in-scope PA characterization shall be used to obtain the capability level for each in-scope process. [REF002725]
- The *TickITplus* maturity levels given in Table 5 and the capability level for each in-scope process shall be used to obtain the organizational maturity level. [REF002730]

This is described and illustrated in more detail in Appendix F. [REF002735]

There is a set of simple rules that ensure consistency in moving from detailed findings, through characterization to organizational maturity. [REF002740]

The starting point will be the consolidated set of formal findings, each one of which shall be documented and ranked using the conventional terminology for nonconformities [CSR0650]: [REF002750]

- major nonconformity [REF002760]
- minor nonconformity [REF002770]
- observation. [REF002780]

The consolidation of these ranked findings for each defined process shall be used to establish a characterization for each PA for each defined process using the following values [CSR0660]: [REF002790]

- Fully Implemented (FI). [REF002800]
- Largely Implemented (LI). [REF002810]
- Partially Implemented (PI). [REF002820]
- Not Implemented (NI). [REF002830]
- Not Yet Implemented (NYI). [REF002840]

The rules in Table 3 shall be applied in judging the characterization of implemented PAs based on the graded findings [CSR0670]. [REF002850]

The fifth characterization (NYI) shall be used when the sample taken has not had a chance to demonstrate a particular process, and this shall remove the associated IPS from any further consolidation [CSR0680]. [REF002860]

Note, however, that this is not the same as a situation where the IPS should have had examples of the process but none were available. [REF002865]

All defined processes shall have demonstrable evidence of implementation [CSR0690]. [REF002870]

Table 3: Findings for characterization mapping [REF002855]

Findings	Comments and notes	FI	LI	PI	NI
No findings		O			
Positive observations only		O			
Negative observations only	Team decision based on the balance of positive and negative observations, risks, and quantity of observations  Consideration should be given to raising a minor nonconformity	O	O		
One minor nonconformity			O		
Multiple minor nonconformities	Team decision based on the balance of any positive and negative observations, risks, and quantity of nonconformities  Consideration should be given to raising a major nonconformity		O	O	
One major nonconformity	Team decision based on the impact, risks, severity of any minor nonconformities, or positive and negative observations			O	O
Multiple major nonconformities					O

The consolidation of implemented PAs in the Work Groups to an overall defined PA shall comply with the following: [CSR0700] [REF002880]

- if all individual implemented PA characterizations are the same, then the overall defined PA shall be the same characterization. [REF002890]
- if a mix of implemented PA characteristics exists, then a team decision shall be taken based on the range, risk, severity, importance and findings raised for each individual implemented PA characterization, but the final characterization shall be no higher than the highest but can be lower than the lowest [REF002900]

The consolidation of multiple defined PA characterizations shall be a team decision based on the associated risks, use, importance and level of the individual defined PAs but can be no higher than the highest individual characterization and no lower than the lowest individual characterization [CSR0720]. [REF002910]

Table 4: TickITplus process capability levels [REF002925]

Process attribute	Level 1	Level 2	Level 3	Level 4	Level 5
PA 1.1	LI or FI	FI	FI	FI	FI
PA 2.1		LI or FI	FI	FI	FI
PA 2.2		LI or FI	FI	FI	FI
PA 3.1			LI or FI	FI	FI
PA 3.2			LI or FI	FI	FI
PA 4.1				LI or FI	FI
PA 4.2				LI or FI	FI
PA 5.1					LI or FI
PA 5.2					LI or FI

Table 5: TickITplus maturity levels [REF002935]

Process type	Foundation	Bronze	Silver	Gold	Platinum
Type A and B processes	Level 1 or higher	Level 2 or higher	Level 3 or higher	All at level 3, at least 1 at level 4	All at level 3, at least 1 at level 5
Type C processes	Level 1 or higher	Level 1 or higher	Level 2 or higher	Level 3 or higher	Level 3 or higher
Type M processes	N/A	N/A	N/A	Level 3	Level 3

The characterization of a process to a TickITplus level shall be in accordance with Table 4 [CSR0730]. [REF002920]

The characterization of the organizational TickITplus maturity level shall be set as per Table 5 [CSR0740]. [REF002930]

### Report generation

This activity requires assessment reporting to be completed, and as a minimum the following is required [CSR0750]: [REF002940]

- a PAM shall be fully completed for the assessment (other than for surveillance or special assessments) [REF002950]
- all nonconformities and observations shall be recorded [REF002960]
- a report shall be compiled. [REF002970]

Additional reports maybe required by the CBs. [REF002980]

Formal approval to award certificates rests with the CB’s management based on the results of the assessment technical review and recommendations of the registered Assessor (if different). The technical review shall be carried out by, as a minimum, a registered Practitioner or a registered Assessor at the level appropriate to the maturity level being awarded. As for existing ISO 9001 certification, a TickITplus certificate shall not be awarded if a major nonconformity has been raised during the assessment that relates to PA 1.1 for any process in scope, i.e. against a base practice or work product. [CSR0760]: [REF002990]

If a major nonconformity has been raised against a higher-level PA (i.e. PA 2.x to PA 5.x, corresponding to the capability levels Bronze through Platinum), then a certificate can be issued against the level below the level where the major nonconformity was raised, but adequate justification shall be provided to show that the nonconformity has not arisen due to the activities of other processes [CSR0770]. [REF003010]

### Next Assessment Planning

The type of the next assessment will depend on the current assessment type, the results achieved and the requirements of the organization. The Assessment Report shall contain details of the next assessment, with resource requirements and any further activity to complete the pre-assessment activities [CSR0780]. [REF003020]

*Closing meeting*

The CBs shall define the minimum agenda for the closing meeting and comply with accreditation requirements defined in ISO/IEC 17021-1 [CSR0790]. [REF003030]

Section 10 provides details of any specific tailoring of the assessment activities specific to assessment types. [REF003040]

## 9 Post-assessment activities

This Section covers the assessment review, monitoring corrective actions, certificate award, certificate content and the ongoing surveillance planning.

[REF003050]

### 9.1 Certification decision

Following the completion of an assessment recommending a certificate being issued, changed or renewed, the CB shall review the results of the overall assessment and either issue the certificate or provide – in writing – reasons for the delay or refusal. The following items shall be made available and reviewed

[CSR0800]: [REF003060]

- the Assessment Strategy [REF003070]
- the Assessment Plan, with any amendments to show the actual implemented assessment [REF003080]
- the full Assessment Report, signed off by the registered Assessor, including: [REF003090]
  - all nonconformities and observations with any proposed corrective actions and timescales [REF003100]
  - a listing of all (internal and external) team members and their respective roles [REF003110]
  - the sampling calculations and data as required by Section 7.2.2 [REF003120]
- the completed PAM (other than for surveillance or special assessments). [REF003130]

In addition to generic technical review requirements, the review shall confirm that [CSR0810]: [REF003140]

- the scope information is correct and consistent with the information provided in the Assessment Strategy [REF003150]
- the sampling is consistent with TickIT*plus* and any CB requirements [REF003160]
- the recommended TickIT*plus* level is consistent with the PAM record and any nonconformities that have been raised. [REF003170]

The specific requirements for post-assessment activities related to particular assessment types are given in Section 10. [REF003180]

The review shall be completed by a registered Assessor, or other mechanism agreed, in writing, with ITA that ensures competence and independence of the review [CSR0815]. [REF003190]

### 9.2 Certificate format and coverage

In addition to any existing accreditation requirements, the TickIT*plus* certificate awarded shall consist of one mandatory part and one optional part. In addition, there is a supplementary datasheet [CSR0820]. [REF003200]



## TickITplus – Core Scheme Requirements

The main TickIT*plus* certificate shall, in addition to any existing accreditation requirements, include [CSR0830]: [REF003210]

- the TickIT*plus* scope wording [REF003220]
- the TickIT*plus* Scope Profile(s) used and any additional Type C processes [REF003230]
- the overall maturity level for the organization, e.g. Foundation, Bronze or Silver. [REF003240]
- the requirement or reference standards covered [REF003250]
- the main location address. [REF003260]

The optional part of the certificate is used to list the sites covered by the TickIT*plus* assessment certification, if sites additional to the main site are included. [REF003270]

The TickIT*plus* supplementary datasheet shall include [CSR0840]: [REF003280]

- the processes assessed and the levels obtained [REF003290]
- the ACI [REF003300]
- the assessment team and its organizational affiliation [REF003310]
- the organization's registered Practitioner (if capability level certification) [REF003320]
- the version of the PRM at the time of the assessment. [REF003330]

The supplementary datasheet is required whenever a certificate is being awarded. Note that the ACI calculation is only required at initial and certification assessments. [REF003340]

The main TickIT*plus* certificate may act as the ISO 9001 certificate or may be in addition to the ISO 9001 certificate, depending on the relationship between the certification scope and the TickIT*plus* scope. [REF003350]

The additional requirement or reference standards shall be reflected in the wording of the certification scope statement(s) and selection of the Scope Profile(s) [CSR0850]. [REF003360]

In accordance with ISO/IEC 17021-1, certificates are issued for a maximum of 3 years [CSR0860]. [REF003370]

## 10 Tailoring for assessment types

Section 8 describes the general assessment process for the six assessment types. This Section describes the specific requirements for each type of assessment. Where 'full' is specified, that means all requirements specified in Section 8 are required. [REF003380]

Where reference is made to Type C processes under the planning subsections below, these are only the Type C processes that the organization has declared that it wishes to include in the assessment and not all Type C processes. The Type C processes to be included will have been discussed and agreed between the organization and registered Assessor and shall be documented in the Assessment Strategy (see Section 4). [REF003390]

### 10.1 Initial Assessments

#### 10.1.1 Purpose

An Initial Assessment shall be undertaken on organizations that want to be assessed and approved in the TickITplus scheme [CSR0950]. [REF003550]

#### 10.1.2 Documentation and Process Reference Model Review

A full Documentation and PRM Review shall be undertaken in accordance with Section 7.1 [CSR0960]. [REF003560]

#### 10.1.3 Assessment Planning

Initial Assessment Planning shall be undertaken by the registered Assessor, who will conduct the assessment [CSR0970]. [REF003570]

The following process sampling shall apply [CSR0980]: [REF003580]

- Type A: all [REF003590]
- Type B: all [REF003600]
- Type C: all Type C processes within the defined scope shall be included [REF003610]
- Type M: all if in scope. [REF003620]

The minimum team size is one for Foundation level assessments and two for capability and high-maturity assessments [CSR0990]. [REF003630]

#### 10.1.4 Assessment Readiness Review

A full Assessment Readiness Review shall be undertaken in accordance with Section 7.3 [CSR1000]. [REF003640]

#### 10.1.5 Conducting the assessment

The activities described in Section 8 shall be applied in full for the scope of the assessment [CSR1010]. [REF003650]

### 10.1.6 Post-assessment

All activities defined in Section 9 shall be undertaken [CSR1020]. [REF003660]

## 10.2 Surveillance Assessments

### 10.2.1 Purpose

Surveillance Assessments shall be undertaken to verify the continued implementation and improvement of the TickITplus-certified IMS [CSR1030]. [REF003670]

### 10.2.2 Documentation and Process Reference Model Review

No Documentation and PRM Review is required. [REF003680]

### 10.2.3 Assessment Planning

Surveillance Assessment Planning shall be undertaken by a registered Assessor [CSR1040]. [REF003690]

A TickITplus approved organization shall have at least one Surveillance Assessment per year totalling one-third of the initial assessment duration comprising a minimum of one day on-site [CSR1050]. Assessment visits may be carried out at 6 monthly intervals, and require Assessment Planning and Readiness Reviews as appropriate to the size and nature of the organization. [REF003700]

The following process sampling shall apply to the total annual effort [CSR1060]: [REF003710]

- Type A: all must be covered each year [REF003720]
- Type B: as required with a minimum of one-third of the total Type Bs per year [REF003730]
- Type C: as required with a minimum of one-third of the total Type Cs per year [REF003740]
- Type M: all, if in scope. [REF003750]

The minimum team size is one for all levels of assessment [CSR1070]. [REF003760]

Any mandatory elements needed for compliance with the applicable requirements standards shall still be covered [CSR1075]. [REF003770]

### 10.2.4 Assessment Readiness Review

A partial Assessment Readiness Review is required to confirm that the Assessment Plan is valid and that the organization is ready [CSR1077] . [REF003780]

### 10.2.5 Conducting the assessment

The activities described in Section 8 shall be applied in full for the scope of the assessment [CSR1080]. [REF003790]

### 10.2.6 Post-assessment

Where annual surveillance visits are applied, corrective actions arising from non-conformities will be accepted and verified in a time frame commensurate with their severity and in accordance with established CB and ISO/IEC 17021-1 requirements [CSR1090]. [REF003800]

## 10.3 Change of Scope Assessment

### 10.3.1 Purpose

Change of Scope Assessments shall be undertaken as required to address changes in scope covering activities performed, locations, Scope Profiles and requirement or reference standards [CSR1100]. [REF003810]

### 10.3.2 Documentation and Process Reference Model Review

A partial Documentation and PRM Review shall be undertaken in accordance with Section 7.1 [CSR1110]. [REF003820]

All items affected by the change of scope shall be reviewed [CSR1120]: [REF003830]

- Assessment Strategy – to ensure that it reflects the new scope [REF003840]
- PRM – to ensure that it addresses any new processes and other changes [REF003850]
- organizational IMS documentation – to address any new or changed IMS documentation. [REF003860]

Where practical, the documentation review may be included as part of the change of scope assessment. [REF003870]

### 10.3.3 Assessment Planning

Change of Scope Assessment Planning shall be undertaken by a registered Assessor, who will conduct the assessment [CSR1130]. [REF003880]

The following process sampling shall apply [CSR1140]: [REF003890]

- Type A: Corporate Management and Legal; Management Framework; Improvement; and Risk Management [REF003900]
- Type B: all as applied to the change of scope [REF003910]
- Type C: all as affected by the change of scope [REF003920]
- Type M: those affected by the change of scope [REF003930]

The minimum team size is one for all levels of assessment [CSR1150]. [REF003940]

### 10.3.4 Assessment Readiness Review

A full Assessment Readiness Review shall be undertaken in accordance with Section 7.3 [CSR1155]. [REF003950]

### 10.3.5 Conducting the assessment

The activities described in Section 8 shall be applied in full for the scope of the assessment [CSR1160]. [REF003960]

### 10.3.6 Post-assessment

All activities defined in Section 9 shall be undertaken [CSR1170]. [REF003970]

## 10.4 Change of Level Assessment

### 10.4.1 Purpose

Change of Level Assessments are undertaken as required to address changes in level [CSR1180]. [REF003980]

### 10.4.2 Documentation and Process Reference Model Review

A partial documentation and PRM Review is required to check the documentation relating to the level changes [CSR1185] . [REF003990]

### 10.4.3 Assessment Planning

Change of Level Assessment Planning shall be undertaken by a registered Assessor [CSR1190]. [REF004000]

The following process sampling shall apply [CSR1200]: [REF004005]

- Type A: all for a change at the capability level or those declared critical for high maturity. [REF004010]
- Type B: all for a change at the capability level or those declared critical for high maturity. [REF004015]
- Type C: all for a change to Silver or Gold levels [REF004020]
- Type M: all in the scope and those coming into the scope. [REF004025]

Note that the coverage of processes involves evaluating the additional PAs at the new level for all in-scope Type A and B processes, or if the level change is to Gold or Platinum, then the full assessment of the Type M processes as necessary.

[REF004030]

Note: [REF004035]

- between Foundation and Bronze there is no level change for Type C processes required. [REF004040]
- while there is no change in level requirements for non-critical Type A and B processes when moving to the Gold level, there is a level change for the Type C processes which must therefore be assessed at level 3. [REF004045]
- it is not possible to apply high maturity PAs to Type C processes. [REF004050]

The minimum team size is two for capability and high-maturity assessments [CSR1210]. [REF004060]

#### *10.4.4 Assessment Readiness Review*

A full Assessment Readiness Review shall be undertaken in accordance with Section 7.3 [CSR1220]. [REF004080]

#### *10.4.5 Conducting the assessment*

The activities described in Section 8 shall be applied in full for the scope of the assessment [CSR1230]. [REF004090]

#### *10.4.6 Post-assessment*

All activities defined in Section 9 shall be undertaken [CSR1240]. [REF004100]

### **10.5 Renewal Assessment**

#### *10.5.1 Purpose*

A Renewal Assessment shall be used when a 3 year certification period expires [CSR1250]. [REF004110]

#### *10.5.2 Documentation and Process Reference Model Review*

A partial Documentation and PRM Review is required to confirm its currency and validity for the assessment [CSR1260]. [REF004120]

#### *10.5.3 Assessment Planning*

Renewal Assessment Planning shall be undertaken by a registered Assessor [CSR1270]. [REF004130]

The following process sampling shall apply [CSR1280]: [REF004140]

- Type A: all included [REF004150]
- Type B: all included [REF004160]
- Type C: all included [REF004170]
- Type M: all included, if in scope. [REF004180]

The minimum team size for Foundation level assessment is one registered Assessor. The minimum team size for capability and high maturity assessment is two registered people with at least one being a registered Assessor at an equivalent level to the assessment level being conducted. [CSR1290]. [REF004190]

#### *10.5.4 Assessment Readiness Review*

A full Assessment Readiness Review shall be undertaken in accordance with Section 7.3 [CSR1300]. [REF004200]

#### *10.5.5 Conducting the assessment*

The activities described in Section 8 shall be applied in full for the scope of the assessment [CSR1310]. [REF004210]

### *10.5.6 Post-assessment*

All activities defined in Section 9 shall be undertaken [CSR1320]. [REF004220]

## **10.6 Special Assessment**

### *10.6.1 Purpose*

A Special Assessment is used to address the follow-up of major nonconformities, or where a customer complaint/regulatory failure calls for an additional visit [CSR1330]. [REF004230]

### *10.6.2 Documentation and Process Reference Model Review*

No Documentation and PRM Review is required. [REF004240]

### *10.6.3 Assessment Planning*

Special Assessment Planning shall be undertaken by the registered TickITplus Assessor who last visited the organization [CSR1340]. [REF004250]

The following process sampling shall apply [CSR1350]: [REF004260]

- Type A: those impacted by the issue [REF004265]
- Type B: those impacted by the issue [REF004270]
- Type C: those impacted by the issue [REF004275]
- Type M: all included, if in scope, and impacted by the issue. [REF004280]

The minimum team size is one registered Assessor for all levels of assessment [CSR1360]. [REF004290]

### *10.6.4 Assessment Readiness Review*

No Assessment Readiness Review is required. [REF004300]

### *10.6.5 Conducting the assessment*

The activities described in Section 8 shall be applied in full for the scope of the assessment [CSR1370]. [REF004310]

### *10.6.6 Post-assessment*

In accordance with general assessment practices, steps may be taken to withdraw or suspend approval. Such events shall be reported to ITA [CSR1380]. [REF004320]

All activities defined in Section 9 shall be undertaken [CSR1390]. [REF004330]

## 11 Accreditation requirements

The TickIT*plus* scheme offers Accredited Third Party Certification to the end customer. Only National Accreditation Bodies are eligible to offer TickIT*plus* Accreditation to CBs. Any National Accreditation Body offering accreditation of the TickIT*plus* scheme shall fully meet the requirements of ISO/IEC 17011 [CSR1395] . [REF004335]

The Accreditation Body shall either use a registered Assessor at the appropriate level or use a CB assessor not coded for TickIT*plus* who is supported by a TickITplus Technical Expert who can be a registered Practitioner to carry out all assessment and surveillance activities relating to the operation of the TickIT*plus* scheme [CSR1400] . [REF004340]

CBs seeking to offer TickIT*plus* certification shall be subject to an initial assessment prior to accreditation. The CB documentation relating to the operation of TickIT*plus* certification shall be reviewed to ensure compliance with the TickIT*plus* scheme requirements, including the competence requirements for registered Assessors and Decision Makers. The CB shall not be granted accreditation until it has satisfactorily carried out its first TickIT*plus* certification assessment witnessed by the Accreditation Body [CSR1410]. [REF004345]

To maintain accreditation, CBs shall be subject to surveillance and reassessment in accordance with ISO/IEC 17021-1. Each CB offering TickIT*plus* certification shall be subject to (as a minimum) one assessment per year where continued assessor competence is demonstrated through the Accreditation Body witnessing a representative sample assessment on a client site. The Accreditation Body shall increase its witnessed samples where necessary to have confidence that the CB can maintain a consistent standard across all its scope of operation [CSR1420] . [REF004350]

The Accreditation Body shall maintain records and apply decision making in accordance with ISO/IEC 17011 and its own documented procedures [CSR1430] . [REF004355]



**Appendix A Scheme documentation set**

The scheme documentation is split into two groups: the TickIT*plus* project documentation and the TickIT*plus* scheme documentation (Figure 1). The former is restricted to ITA members, whereas the latter is freely available. [REF004360]

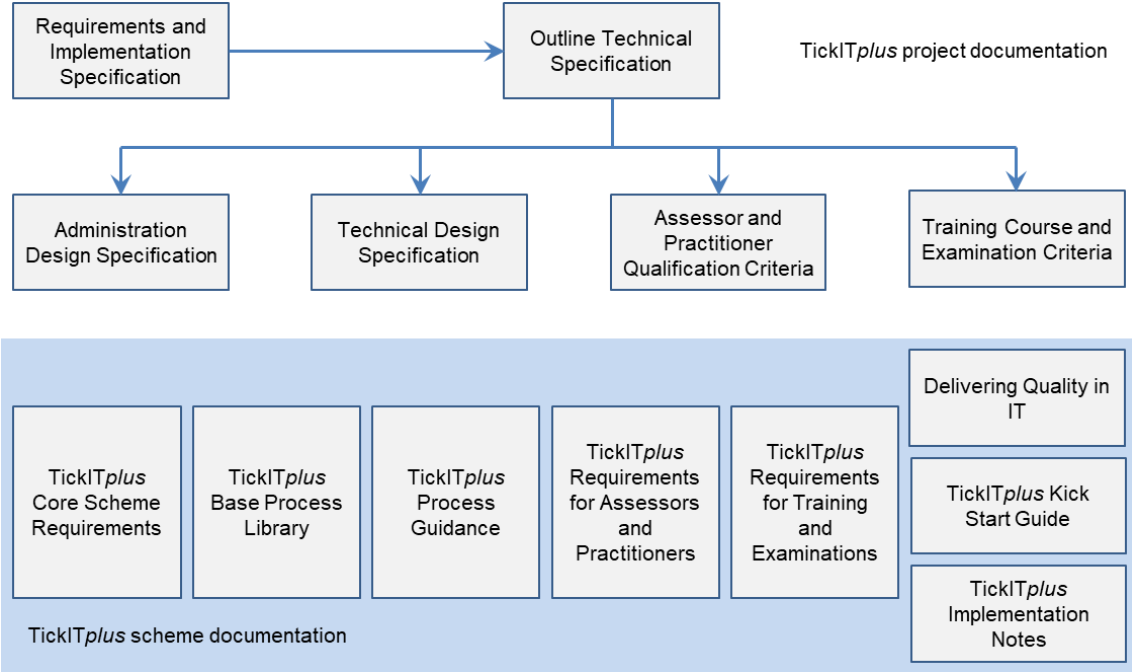


Figure 1: Scheme documentation map [REF004365]

## Appendix B Guidance and examples of scopes

TickIT*plus* identifies three scope domains, and while these are identified as separate scopes, in practice an organization may have any number or combination of scopes. For example, where an organization requires all its activities, at all locations, to be covered by TickIT*plus*, there would be one scope. An organization involving multiple activities all covered under ISO 9001 certification, but with just the software development activities covered under TickIT*plus*, would have two scopes. The organizational scope and the certification scopes would be the same, and a separate scope would exist for the TickIT*plus* assessments. Finally, where an organization has multiple activities at many locations but only a few of these are covered under ISO 9001 certification and less to be covered under TickIT*plus* certification, then there would be three scopes, as shown in Figure 2. [REF004370]

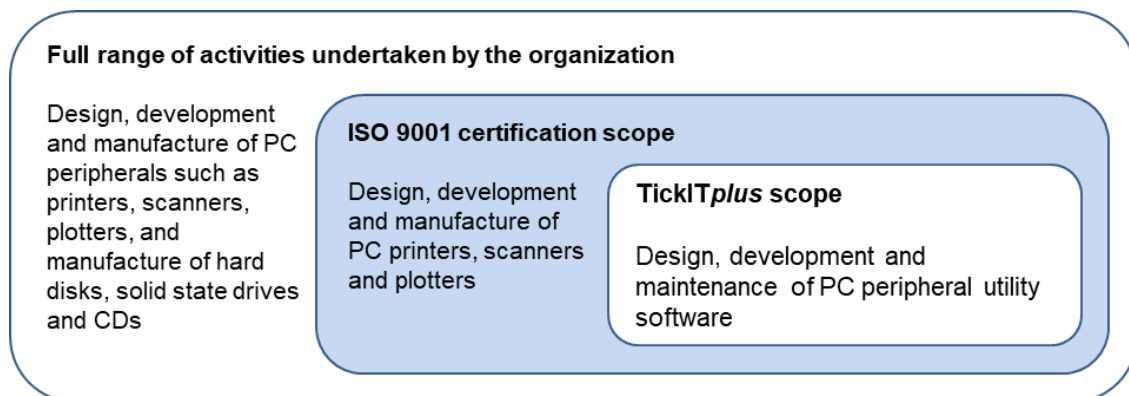


Figure 2: Example of scopes [REF004380]

Additional requirement standards, such as ISO/IEC 20000-1 or ISO/IEC 27001, and reference standards, such as IEC 61508, can be covered in a TickIT*plus* assessment. The additional requirement or reference standards should be reflected in the wording of the certification scope statement(s) and selection of the Scope Profile(s). For example, if: [REF004390]

- ISO/IEC 20000-1 is required, then the Service Management Scope Profile shall be selected as a minimum [REF004400]
- ISO/IEC 27001 is required, then the Information Management and Security Scope Profile shall be selected as a minimum [REF004410]

The scoping exercise is one that should be initially performed by the organization being assessed and confirmed by the selected CB prior to the commencement of any TickIT*plus* assessment activities. [REF004420]

## Appendix C Scope Profiles

TickIT*plus* defines eight generic Scope Profiles aimed at providing sufficient coverage of the majority of organizations working in the IT sector. [REF004430]

The Scope Profiles are listed in Table 6. [REF004440]

Table 6: Scope Profiles [REF004445]

Scope Profile	Description
Information Management and Security	Delivery of information and implementation of systems to meet data confidentiality, integrity and availability requirements as well as general security
Service Management	Operations in a service management environment: delivering IT- based services to clients – either outsourced or internal
Systems and Software Development and Support	All aspects of systems and software development, both traditional and new methodologies, and long term support and maintenance
Project and Programme Management	Multidiscipline programme and project delivery as a specialist area: analysis, reporting, risk and general project management
Corporate Strategy Planning and Management	Taking an organizational wide view of IT operations: long-term planning, IT strategy and high-level management
Legal and Compliance	The delivery of products or services within a legal and compliance framework: business analysis, corporate responsibility, risk and compliance audit
Product Validation, Quality and Measurement	Independent testing and validation of product and services; ensuring quality and quantitative measurements are applied to product development and delivery
IT Systems Engineering and Infrastructure	Operations involving network and data handling systems: server farms, data centres and supporting infrastructure

## Appendix D Base Process Library

### D.1 Structure of Base Process Library

Figure 3 illustrates the structure of base processes within the BPL. [REF004450]

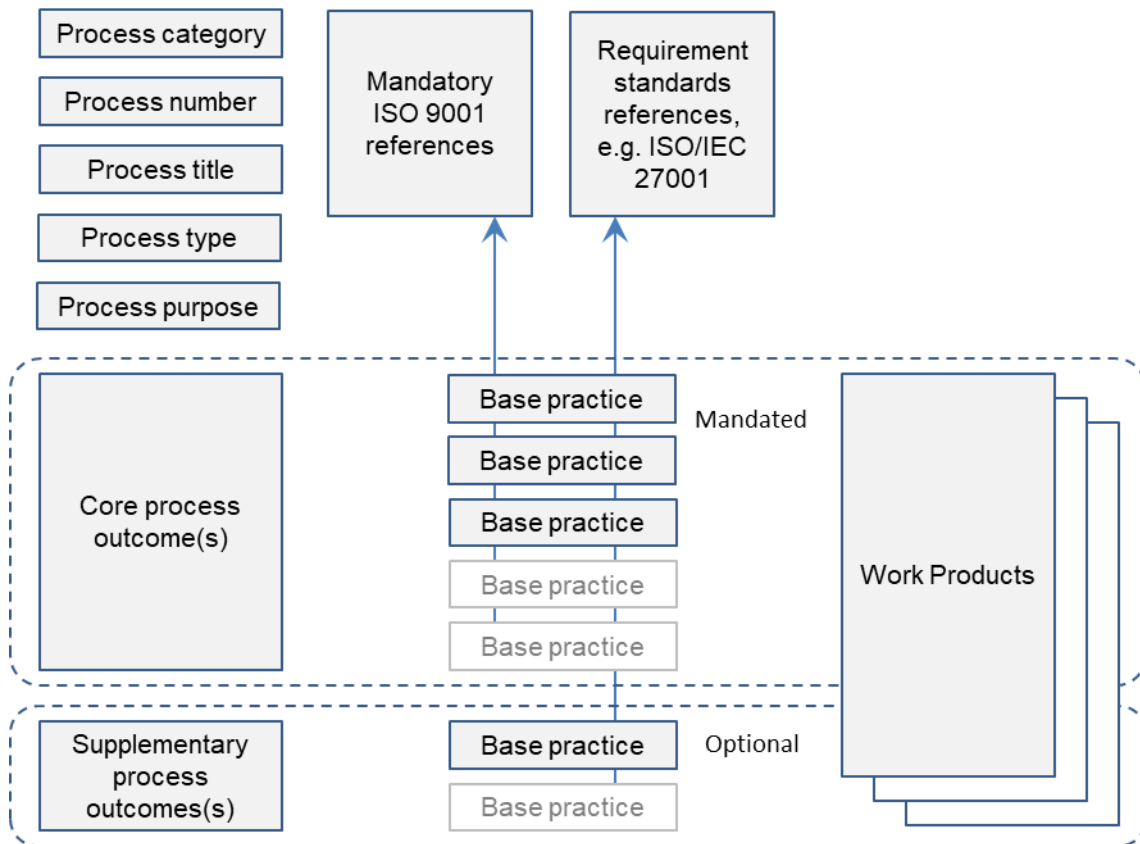


Figure 3: Structure of the BPL [REF004455]

### D.2 Base Process Library control

TickITplus defines a scheme for managing different releases of the BPL that takes into account major and minor changes affecting one or more certification scheme. The BPLB is a valid release of the BPL. [REF004460]

The BPLB designation has the form X.Y.Z, where: [REF004470]

- X is the scheme version [REF004480]
- Y is the BPL version [REF004490]
- Z is the BPL revision. [REF004500]

A major change will affect the version and a minor change will affect the revision. The timescales for adopting a major change will either be the same as that for a change to a standard or 3 years if initiated by ITA. The timescales for adopting a minor change will be 12 months. [REF004510]

The BPL will contain a table showing the history to the current released BPLB designation and the Scope Profile(s) that are impacted, as shown in Table 7. Where there is a major impact the row/column will be marked with 'M' and where there is a

minor impact the row/column will be marked with ‘m’. Table 8 provides an example of a fictitious future BPLB control. [REF004520]

Table 7: Current BPLB designation control [REF00530]

BPLB Designation	Information Management and Security	Service Management	Systems and S/W Development and Support	Project and programme management	Corporate Strategy Planning and Management	Legal and Compliance	Product Validation, Quality and Measurement	IT Systems Engineering and Infrastructure	Comments
1.1.1			M				M		This was the first release and impacted the two initial Scope Profiles
1.1.2		M	m	M	M	M	M		This release introduced new Scope Profiles, process and some amendments to existing processes which therefore affected existing users of the BPL
1.1.3	M	m	m	m	m	m	m	M	This release introduced the remaining processes along with a few minor changes to existing process, in particular IT Finance Management.
1.2.0	M	M	M	M	M	M	M	M	Up issue to include ISO 9001:2015

Note that although there have been two theoretical major releases of the BPL the BPLB version number has remained at 1. This is because the releases did not actually make any major change to existing use of the BPL. In future the scheme number, version and revision numbers may change as illustrated in Table 8.[REF004540]

Table 8: Example of a fictitious future BPLB designation control [REF004550]

BPLB Designation	Information Management and Security	Service Management	Systems and S/W Development and Support	Project and Programme Management	Corporate Strategy Planning and Management	Legal and Compliance	Product Validation, Quality and Measurement	IT Systems Engineering and Infrastructure	Comments
1.1.1			M				M		This was the first release and impacted the two initial Scope Profiles
1.1.2		M	m	M	M	M	m		This release introduced new Scope Profiles, process and some amendments to existing processes which therefore affected existing users of the BPL
1.1.3	M	m	m	m	m	m	m	M	This release introduced the remaining processes along with a few minor changes to existing process.
1.2.0	M	M	M	M	M	M	M	M	Up issue to include ISO 9001:2015
1.2.1			m						Here minor changes have been made to a couple of processes which only appear in the Systems and S/W Development and Support Scope Profile, e.g. Architectural design and Development implementation.  Users of this Scope Profile have 9 months to review and implement necessary changes to their PRM.
1.2.2	m	m	m	m	m	m	m	M	Numerous minor changes have been made to the Type-A processes.  Users of all Scope Profiles, i.e. the scheme, have 9 months to review and implement necessary changes to their PRM.
1.3.0	M								The ISO/IEC 27001 standard is updated and the changes incorporated into the BPL which only affects users of the Information management and security Scope Profile.  Being a major release of the requirement standard organizations have 3 years to address the new requirements.
1.4.0	M	M	M	M	M	M	M	M	ISO 9001 is updated which could affect all Scope Profiles. Organizations would then have 3 years to review and update their PRM. If this update occurred within the 3 years from the ISO/IEC 27001 update (i.e. release 1.3.0) organizations with both ISO/IEC 27001 and 9001 would need to address 1.3.0 as scheduled and then 1.4.0 although in practice they may well be addressed together.

Note that while one period is current for one requirement standard, a second period might start running for another requirement standard, in which case the specific requirements for each standard would take precedence. For example, if ISO/IEC 27001 was updated and organizations were given 3 years to transition to the new standard, but after 1 year ISO 9001 was also updated with a 3 year transition timescale, then ISO/IEC 27001 certified organizations would still have to comply with the original 3 year transition timescale for ISO/IEC 27001. [REF004555]

### **D.3 Base Process Library process**

Table 9 identifies the BPL processes, their type and their allocated category. [REF004560]

### **D.4 Process mappings**

Each Scope Profile consists of all the Type A processes and those Type B processes that are key to ensuring that results from the Scope Profile are effective for the organization. The mapping is shown in Table 9. [REF004570]

Table 9: Mapping of Scope Profile to process [REF004575]

	Type	Group	Number	Information Management and Security	Service Management	Systems and SW Development and Support	Project and Programme Management	Corporate Strategy Planning and Management	Legal and Compliance	Product Validation, Quality and Measurement	IT Systems Engineering and Infrastructure
Human Resource Management	A	ORG	1	✓	✓	✓	✓	✓	✓	✓	✓
Management Framework	A	ORG	2	✓	✓	✓	✓	✓	✓	✓	✓
Corporate Management and Legal	A	ORG	3	✓	✓	✓	✓	✓	✓	✓	✓
Infrastructure and Work Environment Management	A	ORG	4	✓	✓	✓	✓	✓	✓	✓	✓
Improvement	A	ORG	5	✓	✓	✓	✓	✓	✓	✓	✓
Measurement and Analysis	A	ORG	6	✓	✓	✓	✓	✓	✓	✓	✓
Customer Focus	A	ORG	7	✓	✓	✓	✓	✓	✓	✓	✓
Risk Management	A	ORG	8	✓	✓	✓	✓	✓	✓	✓	✓
Programme Management	B/C	ORG	9				✓	✓			
Lifecycle Model Management	B/C	ORG	10			✓	✓				
Resource Management	B/C	ORG	11		✓		✓	✓			✓
Security Management	B/C	ORG	12	✓	✓			✓	✓		
Project Management	B/C	PRJ	1			✓	✓				
Decision Management	B/C	PRJ	2				✓	✓	✓		
Configuration and Change Management	B/C	PRJ	3	✓	✓	✓	✓				✓
Information Management	B/C	PRJ	4	✓	✓			✓	✓		
Problem and Incident Management	B/C	PRJ	5	✓	✓	✓				✓	✓
IT Finance Management	B/C	PRJ	6		✓		✓	✓	✓		
Management Reporting	B/C	PRJ	7		✓		✓	✓	✓		
Data Management	A	TEC	1	✓	✓	✓	✓	✓	✓	✓	✓
Capacity Management	B/C	TEC	2		✓			✓			✓
Integration Management	B/C	TEC	3			✓					
Verification	B/C	TEC	4			✓				✓	
Validation	B/C	TEC	5			✓	✓			✓	



	Type	Group	Number	Information Management and Security	Service Management	Systems and S/W Development and Support	Project and Programme Management	Corporate Strategy Planning and Management	Legal and Compliance	Product Validation, Quality and Measurement	IT Systems Engineering and Infrastructure
Transition and Release Management	B/C	TEC	6		✓	✓	✓				
Operations Management	B/C	TEC	7	✓	✓			✓			✓
Maintenance Management	B/C	TEC	8								✓
Disposal	B/C	TEC	9	✓	✓				✓		✓
Stakeholder Requirements Definition	B/C	TEC	10	✓	✓	✓	✓			✓	
Requirements Analysis	B/C	TEC	11			✓					
Service Level Management	B/C	TEC	12		✓						✓
Architectural Design	B/C	TEC	13			✓					
Development Implementation	B/C	TEC	14			✓					
Continuity, Availability and Contingency Management	B/C	TEC	15	✓	✓			✓			✓
Domain Engineering	C	ITS	1								
Asset Management	B/C	ITS	2	✓	✓			✓			✓
Acquisition and contracts management	B/C	AGR	1	✓	✓		✓	✓	✓		✓
Supply Management and Business Relationships	B/C	AGR	2	✓	✓		✓		✓		
Quantitative Performance Management	M	MAT	1	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
Quantitative Process Improvement	M	MAT	2	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*

✓\* these are only mandatory at Gold and Platinum

## D.5 Example of Base Process Library processes

The three processes shown in Table 10,

Table 11 and Table 12 are examples of processes in the BPL. The first example shows the Human Resource Management process, which has two outcomes, one mandatory and the other supplementary. The second outcome does not reference any requirement or reference standard, and therefore the decision to include it is left to the organization. The second example is the Data and Record Management process, which again has two outcomes, but in this case they are both mandatory as they reference ISO 9001 clauses. The third example is the Security Management process and it shows how the first outcome is mandatory and second outcome is still supplementary, but mandatory if ISO/IEC 27001 certification is required. Please note that the second example was taken from version 1.1.3 of the BPL to illustrate a process with two mandatory outcomes. In the latest version of the BPL there are no such cases. [REF004580]

In the three examples given, the inclusion of ISO/IEC 20000 mapping does not affect whether the outcomes are core and mandated or supplementary and non-mandated. Note, in the current release of the BPL, there are no outcomes that purely relate to ISO/IEC 20000-1 and would therefore be mandated if ISO/IEC 20000-1 were to be included in the scope, i.e. it was not found necessary to add additional outcomes to address ISO/IEC 20000-1 requirements. [REF004590]

The third example shows that in adding the ISO/IEC 27001 mapping to the BPL it was necessary to add an additional outcome to Security Management process in order to recognize the full requirements of that standard, e.g. in particular the stronger requirement to fully understand the coverage of the security controls and to be proactive in monitoring their effectiveness. In this case the new outcome is mandatory when the Scope Profiles that call up Security Management are selected and certification against ISO/IEC 27001 is required. [REF004595]

# TickITplus – Core Scheme Requirements

Table 10: Example with core and supplementary outcomes [REF004583]


Process ID	ORG.1	Process Name	Human Resource Management	Category	Organizational Processes				Type	A
Process Purpose	To ensure that the resources required to meet the business plan are available.							Version	v4r0	
Process Outcome	Process Base Practices	Input Work Products	Output Work Products	ISO 9001: 2015	ISO 20000: 2011	ISO 27001: 2013	PAS 754: 2014			
OU.1 Human resources are provided to meet the business plan and no impact from lack of human resources is evident.  <i>[This is a core outcome and is mandatory in all cases because at least one of its base practices references the ISO 9001 Standard]</i>	<b>BP.1 Establish Human Resource Policies and Procedures</b> Policies are established, approved and communicated that ensure human resources are identified, provided, managed, developed and released. Policies take into account all statutory, regulatory and security requirements. Procedures are defined, approved and made available for use, to implement the human resources policies. The policies and procedures are maintained under the management framework.	Business Plan Management Framework	Human Resource Policies Human Resource Procedures	4.4.1c 4.4.2 7.5	4.3.1	4.4 7.5.1				
	<b>BP.2 Identify the Required Human Resources</b> Organizational human resource needs are identified based on business needs, including both direct delivery requirements and indirect functional support. Human resource requirements are defined, reviewed, approved and communicated to all stakeholders.	Business Plan Delivery Needs	Human Resource Requirements	4.4.1d 5.1.1e 7.1.1 7.1.2 7.1.5.1	4.4.1 4.5.2g 4.5.4.3c 5.2d 6.4a	5.1c 7.1				
	<b>BP.3 Satisfy Human Resources Requirements</b> Human resources are made available to meet the business plan using development, recruitment or reduction as appropriate. The recruitment programme is based on organizational policies, delivery needs and recognized business constraints, and is reviewed by top management on a periodic and event driven basis. Recruitment is undertaken according to procedures, and records are maintained. Reduction plans are established, reviewed and approved for the reduction of human resources. When staff leave the organization, identified exit requirements are satisfied, including return of assets and removal of access. Exit assessments are conducted to identify corrective action or improvement opportunities.	Human Resource Requirements	[Human Resources] Improvement Request Recruitment Programme Reduction Plans	4.4.1d 5.1.1e 7.1.1 7.1.2 7.1.5.1	4.1.1e 4.4.1 4.5.3c 5.3c	5.1c 7.1 A7.1 A7.3				

## TickITplus – Core Scheme Requirements

Process ID	ORG.1	Process Name	Human Resource Management			Category	Organizational Processes				Type	A
Process Purpose	To ensure that the resources required to meet the business plan are available.										Version	v4r0
Process Outcome	Process Base Practices		Input Work Products	Output Work Products	ISO 9001: 2015	ISO 20000: 2011	ISO 27001: 2013	PAS 754: 2014				
	<p><b>BP.4 Allocate Human Resources</b></p> <p>Human resources are allocated to satisfy the identified needs based on the required resourcing levels, business risks, timescales and compatibility.</p> <p>Where the identified need cannot be fully satisfied, the gap is identified and managed.</p> <p>Roles, responsibilities (including those related to security) and objectives are clearly established and agreed with each human resource in a timely manner.</p>		[Human Resources]	Job Descriptions Organizational Chart	4.4.1e 5.3 8.3.2d 8.5.1e	4.1.3a 4.4.2d 4.5.3b	5.3 A7.2					
	<p><b>BP.5 Induct Human Resources</b></p> <p>Individual induction programmes are defined, approved and provided to all new human resources and human resources that have changed roles.</p> <p>Induction records are maintained.</p> <p>The effectiveness of the induction programmes is measured, and where needed, corrections and improvements are made.</p>		[Human Resources]	Corrective Action Request Improvement Request Induction Programmes Induction Records	7.1.6 7.2 7.3 8.5.1g	4.3.3 4.4.2	7.1 7.2 7.3 A7.2	PE.02				
	<p><b>BP.6 Assess Human Resource Performance</b></p> <p>Assessment criteria are identified, approved and used as part of the assessment.</p> <p>Human resources are formally assessed on a periodic and event driven basis to provide feedback from line management, set specific objectives and determine development needs.</p> <p>Mutually agreed records of assessments are confidentially maintained.</p>		[Human Resources] Assessment Criteria	Assessment Record Development Needs	7.1.6 7.2 8.5.1g	4.4.2	7.1 7.2	PE.02				
	<p><b>BP.7 Develop Human Resources</b></p> <p>Human resource development needs are identified on a periodic and event driven basis to satisfy business needs.</p> <p>Development plans are defined and approved to satisfy the identified needs.</p> <p>The effectiveness of human resource development is measured.</p> <p>Where needed, corrections and improvements to the development approach are made.</p>		[Human Resources] Business Needs Delivery Needs Development Needs	Development Records Improvement Request	7.1.6 7.2 8.5.1g 10.3	4.4.2	7.1 7.2 10.2 A7.3	PE.02				

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Process ID	ORG.1	Process Name	Human Resource Management			Category	Organizational Processes				Type	A
Process Purpose	To ensure that the resources required to meet the business plan are available.										Version	v4r0
Process Outcome	Process Base Practices		Input Work Products	Output Work Products		ISO 9001: 2015	ISO 20000: 2011	ISO 27001: 2013	PAS 754: 2014			
OU.2 The organization has externally recognized subject matter experts.  <i>[This supplementary outcome is not mandatory as its base practice does not reference the ISO 9001 Standard.]</i>	<b>BP.8 Benefit from the Subject Matter Expert</b> A network is established of internal subject matter experts, listing their area of expertise and mode of support. The network is supported by a defined mechanism to support the exchange of information between the subject matter experts and the organization. Subject matter experts are encouraged and supported to promote their recognized knowledge externally, to enhance the reputation of the organization.		Job Descriptions Organizational Chart	Assessment Record Development Records					PE.01			



## TickITplus – Core Scheme Requirements

Table 11: Example with only core outcomes [REF004585]

Please note that this example was taken from the Base Process Library V1.1.3 as in the new version V.2.0 there are no processes with multiple core outcomes.

Process ID	TEC.1	Process Name	Data and Record Management	Category	Technical Processes				Type	A
Process Purpose	To ensure that data and records required by the organization are available to satisfy business needs.							Version	v3r0	
Process Outcome	Process Base Practices	Input Work Products	Output Work Products	ISO 9001	ISO 20000-1	ISO 27001:05	ISO 27001:13			
<b>OU.1</b> Up-to-date and accurate data necessary for the effective delivery of the organization's business plan is available. <i>[This is the first core outcome and is mandatory in all cases because at least one of its base practices references the ISO 9001 Standard.]</i>	<b>BP.1 Establish Data Policy and Procedures</b> A policy is established, approved and communicated to ensure that data and documentation are managed according to business needs. Procedures are defined, approved and made available for use to manage data maintained under the management framework. The policy and procedures are maintained under the management framework.	Business Plan Management Framework	Data Management Policy Data Management Procedures	4.2.1d 4.2.3	4.3.2	4.3.2	7.5.1 7.5.2			
	<b>BP.2 Identify Data</b> The organization identifies all data that needs to be reviewed, approved or controlled.		Master Data List	4.2.1d	4.3.1g 4.3.1h 4.3.2a 4.3.2f 4.3.2g	4.3.1g 4.3.2	7.5			
	<b>BP.3 Review Data</b> Reviews are undertaken, and action is taken by the owner to address identified issues. The stakeholders involved in the review formally decide the need for a subsequent full review, partial review or update completion check. Data review records are maintained.	Master Data List	Data Review Records	4.2.3b 4.2.4	4.3.2b 4.3.2c 4.3.3	4.3.2	7.5			
	<b>BP.4 Approve and Store Data</b> Data is approved by defined authorities and stored within a defined system. Records of data approval are maintained.	Master Data List	Approval Records	4.2.3e 4.2.4	4.3.2a 4.3.2e 4.3.3	4.3.2	7.5			

## TickITplus – Core Scheme Requirements

Process ID	TEC.1	Process Name	Data and Record Management	Category	Technical Processes				Type	A
Process Purpose	To ensure that data and records required by the organization are available to satisfy business needs.							Version	v3r0	
Process Outcome	Process Base Practices	Input Work Products	Output Work Products	ISO 9001	ISO 20000-1	ISO 27001:05	ISO 27001:13			
	<p><b>BP.5 Control Data Changes</b></p> <p>Data is stored within a defined system that tracks changes, and identifies and provides access and retention controls.</p> <p>All versions of data are uniquely identified.</p> <p>Data is changed through a formal process that involves communication to stakeholders.</p>	<p>Change Request</p> <p>Master Data List</p>	<p>Change Record</p> <p>Master Data List</p>	<p>4.2.3c</p> <p>4.2.3d</p> <p>4.2.3e</p>	<p>4.3.2b</p> <p>4.3.2d</p> <p>4.3.2f</p> <p>5.3k</p>	<p>4.3.2</p>	<p>7.5</p>			
	<p><b>BP.6 Archive and Dispose of Data</b></p> <p>Data is archived to provide long-term secure storage.</p> <p>Data is disposed of securely to prevent unauthorized access or use after specified retention periods.</p> <p>Data disposal records are maintained.</p>	<p>Data Management Procedures</p> <p>Master Data List</p>	<p>Disposal Records</p> <p>Master Data List</p>	<p>4.2.3g</p>	<p>4.3.2h</p> <p>4.3.3</p>	<p>4.3.2</p>	<p>7.5</p>			
<p>OU.2</p> <p>Evidence of activities undertaken is available to show that statutory and regulatory requirements are met, contractual requirements are achieved, and improvements are being made.</p> <p><i>[This is the second core outcome and is mandatory in all cases because at least one of its base practices references the ISO 9001 Standard.]</i></p>	<p><b>BP.7 Establish Record Management Policy and Procedures</b></p> <p>A policy is established, approved and communicated to ensure that records are managed according to business needs.</p> <p>Procedures are defined, approved and made available for use to manage records maintained under the management framework.</p> <p>The policy and procedures are maintained under the management framework.</p>	<p>Business Plan</p> <p>Management Framework</p>	<p>Record Management Policy</p> <p>Record Management Procedures</p>	<p>4.2.1d</p> <p>4.2.4</p>	<p>4.3.3</p>	<p>4.3.3</p>	<p>7.5</p>			
	<p><b>BP.8 Identify Records</b></p> <p>The organization identifies the records that are to be retained to satisfy business needs and objectives, including customer needs and quality assurance activities, together with any statutory and regulatory requirements.</p>		<p>Master Record List</p>	<p>4.2.1d</p>	<p>4.3.1g</p> <p>4.3.3</p>	<p>4.2.3h</p> <p>4.3.1h</p> <p>4.3.3</p>	<p>7.5.1</p>			

## TickITplus – Core Scheme Requirements

Process ID	TEC.1	Process Name	Data and Record Management	Category	Technical Processes				Type	A
Process Purpose	To ensure that data and records required by the organization are available to satisfy business needs.							Version	v3r0	
Process Outcome	Process Base Practices	Input Work Products	Output Work Products	ISO 9001	ISO 20000-1	ISO 27001:05	ISO 27001:13			
	<b>BP.9 Manage Records</b> Records from conducting the organization's business activities are collected, stored and access controlled. Records identify the activity, date and source. Reviews are undertaken to ensure that the records are adequately maintained according to the record management procedures.	Record Management Procedures	Record Review Records	4.2.4	4.3.3	4.3.3	7.5.3			
	<b>BP.10 Record Disposal</b> Records are disposed of securely to prevent unauthorized access or use according to the record management procedures. Records of disposal are maintained.	Disposal Records Master Record List Record Management Procedures	Disposal Records Master Record List	4.2.4	4.3.3	4.3.3	7.5.3			



Table 12: Example with core and supplementary outcomes, e.g. ISO/IEC 27001 [REF004587]

Process ID	ORG.12	Process Name	Security Management				Category	Organizational Processes				Type	B/C
Process Purpose	To ensure the protection and availability of information assets.										Version	v4r0	
Process Outcome	Process Base Practices		Input Work Products	Output Work Products	ISO 9001: 2015	ISO 20000: 2011	ISO 27001: 2013	PAS 754: 2014					
OU.1 There is no damage to the organization, stakeholders or customers arising through the mishandling or loss of information. <i>[This is a core outcome and is mandatory in all cases because at least one of its base practices references the ISO 9001 Standard]</i>	<b>BP.1 Establish Security Management Policies and Procedures</b> Policies for identifying and managing the security of business information assets are established, approved and communicated. Policies take into account any business and regulatory requirements for security management. The procedures are defined, approved and made available for use to implement the security management policies. Procedures comprise identifying the information assets which require security management and how appropriate records are maintained. The policies and procedures are maintained under the management framework.		Business Plan Management Framework	Security Policies Security Procedures	4.4.1c 4.4.2 7.5	6.6.1	5.2 7.5 A5.1						
	<b>BP.2 Managing Information Security</b> The organization assigns an individual to be responsible for information security. A team is selected to review and coordinate security activities on a regular basis. Ongoing consideration is given to ensure that emerging threats and vulnerabilities, both internally and externally, are understood and taken into account. Potential and actual security breaches are managed in accordance with Problem and Incident Management.		[Security Incidents] Security Policies Security Procedures	Incident Records Security Responsibilities	5.3 7.1.1 7.1.2	6.6.2	5.3 7.1 A6.1 A16.1						

# TickITplus – Core Scheme Requirements

Process ID	ORG.12	Process Name	Security Management			Category	Organizational Processes				Type	B/C
Process Purpose	To ensure the protection and availability of information assets.										Version	v4r0
Process Outcome	Process Base Practices		Input Work Products	Output Work Products	ISO 9001: 2015	ISO 20000: 2011	ISO 27001: 2013	PAS 754: 2014				
	<b>BP.3 Identify and Manage Risks</b> The organization identifies and assesses risks to information assets, considering compromises of confidentiality, integrity and availability. The information security risk assessment covers all business, contractual and regulatory requirements. Control objectives are selected to reduce risk in line with management's risk appetite. Controls are selected to achieve control objectives.		Asset Log Risk Management Procedures Security Policies Security Procedures	Risk Records Risks Security Plan	6.1	6.6.2	6.1.1 6.1.2 8.2 8.3					
	<b>BP.4 Implement and Manage Controls</b> The controls are implemented, evaluated and managed in accordance with the management framework. Changes to the provision of services are raised through the formal change management process and are assessed for the impact on the security controls. Security incidents are recorded and analysed for corrective action and improvement opportunities.		Change Request Management Framework Security Plan	Change Record Corrective Action Request Improvement Request Security Controls	6.2 8.5.1 8.5.4 10	6.6.2 6.6.3	6.1.1 6.1.3 8.3 10					
OU.2 The organization fully understands the coverage of security controls and does not experience damage from unexpected security incidents  <i>[This second supplementary outcome is optional for ISO 9001 and ISO/IEC 20000-1 but mandatory when ISO/IEC 27001 is included, because its associated base practices don't reference any ISO 9001 or ISO/IEC 20000-1 clauses but do reference ISO/IEC 27001 clauses]</i>	<b>BP.5 Security Coverage is Understood and Documented</b> The organization fully understands and has documented the extent and coverage of the implemented security controls. The extent and coverage of the security controls is reviewed on a periodic and event driven basis. The documentation is maintained under change and configuration management.		Risk Records Security Controls	Risk Treatment Plan Statement of Applicability			6.1.3 7.5 8.3					
	<b>BP.6 Proactively Monitor Effectiveness of Controls</b> The organization implements proactive monitoring and review of operational security controls where incidents and events will cause security breaches. Corrective action is undertaken where the controls are considered inadequate and risk treatment plans are updated.		Incident Records Risk Treatment Plan Security Controls	Corrective Action Request Improvement Request Risk Mitigation Actions			9.1 10 A16.1					

### Appendix E Guidance on Process Reference Models

This appendix provides additional guidance on the mapping and construction of an organizational PRM. There are a number of potential mappings that could exist between the BPL and the PRM, and these are discussed below. [REF004600]

The mappings depend on the number of process outcomes required by the selected scope and the number of approaches to implementing a given process within the organization. [REF004610]

Figure 4 illustrates the possible scenarios for mapping the Data and Record Management process, which has two mandatory outcomes: one covering data management and the other covering record management. Given an organization that manages both secure and unsecure data and records, there could be four possible scenarios, numbered 1 to 4. [REF004620]

In the first scenario, the organization identifies one defined process that covers both types of Data and Record Management. [REF004630]

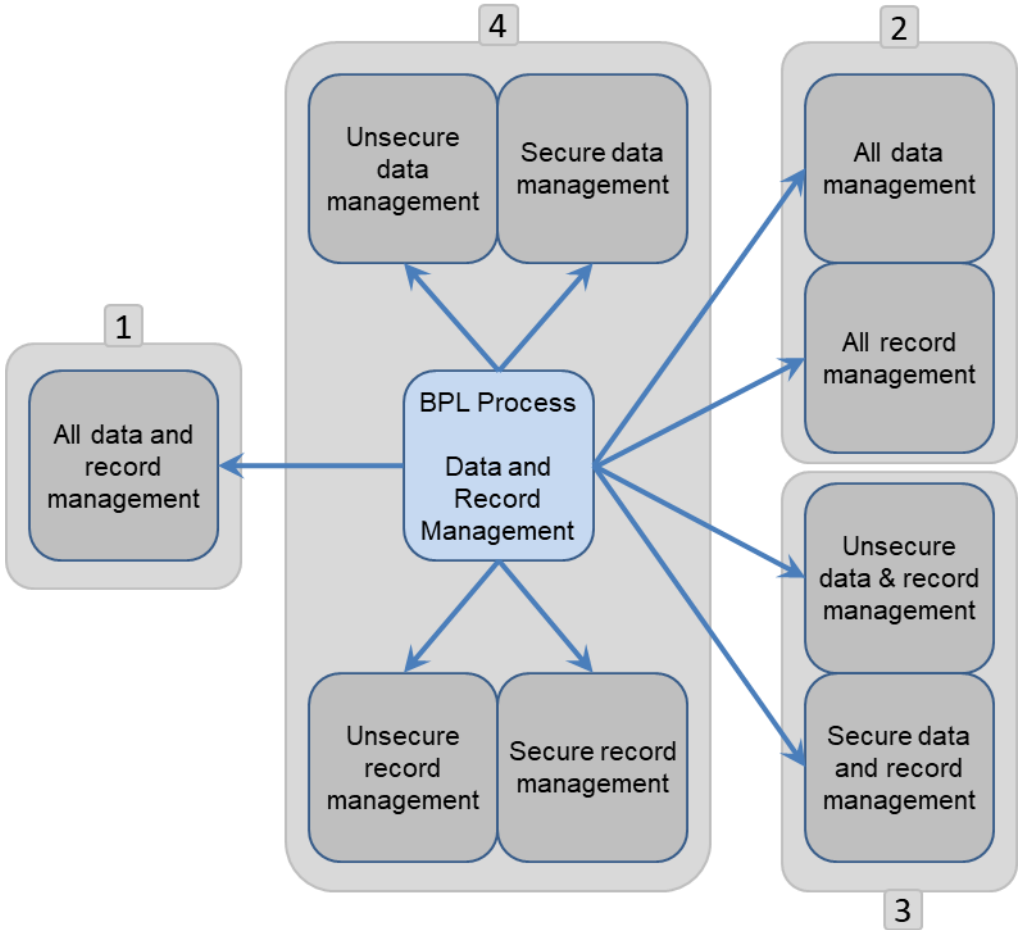


Figure 4: Generic process to defined process mapping options [REF004625]

In the second scenario, the organization has decided that it needs to have two defined processes: one to cover all types of data management and the other to cover all types of record management. [REF004640]

In the third scenario, the organization has chosen to create two defined processes but to segment them between secure and unsecure data and record management. [REF004650]

In the final scenario, the organization has four defined processes covering each of the four possibilities: one for secure data management, one for unsecure data management, one for secure record management and, finally, one for unsecure record management. [REF004660]

There are other possibilities, e.g. one process for secure data and record management and two processes, one for unsecure data management and one for unsecure record management. [REF004670]

Please note that this example of the Data and Record Management process was taken from version 1.1.3 of the BPL to provide an illustration of the various mapping combinations allowed. [REF004675]

## Appendix F Process Assessment Model

This appendix provides examples of a possible PAM. It is noted that while the TickITplus scheme defines the minimum content of the PAM, it does not mandate a particular implementation structure. [REF004680]

The example in Table 13 shows a PAM for the assessment of the Risk Management process for an organization’s single defined process (in the PRM), as evidenced through the IPS of two projects, project A and project B. [REF004690]

In this example, two projects were selected as the IPS, and the base practices and work products on both projects were checked either through confirmation or exploration. The results of the checks are shown in terms of ✓ or ✗, along with some indication of the nature of the findings, including identification of the level of any nonconformity. This example only shows the PAM for an assessment conducted at the Foundation level. [REF004700]

In conducting the actual checks, the two projects may have been sampled by different assessment team members or by the same assessment team member, depending on the planned arrangements. No matter how the actual checks are physically conducted, it is necessary to bring together all the results into a single PAM representation, as shown in Table 13. When two or more team members are involved, this could be achieved in a number of ways. [REF004710]

Table 13: PAM example [REF004695]

Process ID	ORG.8	Process name	Risk Management			Category	Organizational	Type	A
Process purpose	To avoid or mitigate potential future events that could adversely affect reaching business objectives						Version	v4.0	
Process outcome		Characterizations			Overall notes	Exploration		✓	
		Proj A	Proj B	Defined process		Confirmation			
OU.1	Risks are managed and business objectives are not adversely affected by unexpected conditions or events.		PI	LI	LI				
Base practices and work products		Proj A results	Proj B results	Notes					
BP.1	Defined Risk Management Procedure	BP	✓	✓					
		WP	✓	✓					
BP.2	Establish Risk Management Plan	BP	✓	✗	-OBS: Project B has not fully established a Risk Management Plan but is clearly managing risks effectively.				
		WP	✓	✗					
BP.3	Identify and Analyse Risks	BP	✓	✓					
		WP	✓	✓					
BP.4	Track Risks	BP	✗	✓	MiNC: Project A is reporting stale risks (see BP.5). +OBS: Although Project B has not produced a Risk Management Plan it is effectively managing all risks.				
		WP	✗	✓					
BP.5	Report Status and Escalate	BP	✗	✓					
		WP	✗	✓					
BP.6	Analyse Risk Management Performance	BP	✗	✗	MiNC: Neither project have completed any form of risk process assessment although it is known that this is about to be undertaken at the organizational level.				
		WP	✗	✗					

One approach might be for each team member to take a copy of the blank master PAM and complete it for their allocated areas, transfer the team results to a single master version of the PAM before the team grade, and then agree on the overall

findings. Another approach might simply be that each team members takes personal notes and then, during the team review, the notes are transcribed into the final master version of the PAM. [REF004720]

The above example shows that projects A and B both had some issues with Risk Management (i.e. the \*s) , but during the team review it was decided that for project A the overall rating for the outcome was Partially Implemented, based on the scheme rating rules and the nature and severity of the findings. The assessment team also decided that the overall rating for project B should be Largely Implemented, again based on the scheme rules and nature of the findings. [REF004730]

The final overall rating is then judged by the team based on a number of factors, including the scheme rules, the nature and severity of the findings, and the achievement of the defined process outcome. At the Foundation and Bronze levels the process outcome is used as guidance, but at Silver and above there must be formal evidence to demonstrate the outcome. In this particular example, the team decided that, in summary, the overall rating could be Largely Implemented.

[REF004740]

In the example in Figure 5 there were two defined processes for the generic Risk Management Process, and each one was checked. The first one was checked on two projects and a support function, and the second was checked at the organizational level. [REF004750]

The examples given in Figure 5 cover the Foundation level only and for a process that has only one outcome. If the process had more than one in-scope outcome, then a similar 'rolling-up' process would be needed for each outcome in each defined process before 'rolling up' the defined processes into the overall PA for the process at the Foundation level, i.e. PA 1.1 (see Appendix I for details of the PAs at each level). [REF004760]

Example 1 to Example 5 illustrates how the various characterizations come together to provide the overall characterization for the process. [REF004770]

## TickITplus – Core Scheme Requirements

Process ID	ORG.8	Process name	Risk Management			Category	Organizational	Type	A
Process purpose	To avoid or mitigate potential future events that could adversely affect reaching business objectives						Version	v1.0	
Process outcome		Characterizations				Overall notes			
		Proj A	Proj B	Support	Defined process				
OU.1	Risks are managed and business objectives are not adversely affected by unexpected conditions or events.		PI	LI	FI	LI			
Base practices and work products		Project A results	Project B results	Support Results	Notes				
BP.1	Defined Risk Management Procedure	BP	✓	✓	✓	<p>Three IPS work groups resulting in an overall characterization for 'day to day work' Risk Management defined process of LI. The assessment team decided that, after considering all factors, the defined process characterization could be LI. Note that the decision cannot be lower than the lowest nor higher than the highest.</p>			
		WP	✓	✓	✓				
BP.2	Establish Risk Management Plan	BP	✓	✗	✓				
		WP	✓	✗	✓				
BP.3	Identify and Analyse Risks	BP	✓	✓	✓				
		WP	✓	✓	✓				
BP.4	Track Risks	BP	✗	✓	✓				
		WP	✗	✓	✓				
BP.5	Report Status and Escalate	BP	✗	✓	✓				
		WP	✗	✓	✓				
BP.6	Analyse Risk Management Performance	BP	✗	✗	✓				
		WP	✗	✗	✓				

Process ID	ORG.8	Process name	Risk Management			Category	Organizational	Type	A
Process purpose	To avoid or mitigate potential future events that could adversely affect reaching business objectives						Version	v1.0	
Process outcome		Characterizations		Overall notes					
		Business	Defined process						
OU.1	Risks are managed and business objectives are not adversely affected by unexpected conditions or events.		LI	LI					
Base practices and work products		Business	Notes						
BP.1	Defined Risk Management Procedure	BP	✓	<p>One IPS work group resulting in an overall characterization for the 'business' Risk Management defined process of LI. Note that in this case the defined process characterization has to be the same as the IPS work group characterization.</p>					
		WP	✓						
BP.2	Establish Risk Management Plan	BP	✓						
		WP	✓						
BP.3	Identify and Analyse Risks	BP	✓						
		WP	✓						
BP.4	Track Risks	BP	✗						
		WP	✗						
BP.5	Report Status and Escalate	BP	✗						
		WP	✗						
BP.6	Analyse Risk Management Performance	BP	✗						
		WP	✗						

Figure 5: PAM example with two defined processes [REF004755]

# TickITplus – Core Scheme Requirements

Example 1: ‘Roll up’ – 1 work group 1 defined process [REF004772]

Generic BPL Processes	Organization Level	Defined Process Attributes	Defined Process Level	Defined Process Attributes	Defined Process Outcome	WG Outcome Level	Implemented Process (WG)	WG Characterization	Outcome Characterization	PA Characterization	Defined Process Characterization	Process Level
Process 1 Development Implementation	Foundation	PA 1.1	Defined Process 1 Waterfall Development	PA 1.1	Outcome WG1	Outcome 1	WG 1 - Project A	PI	PI	PI	PI	Level 0
	Bronze	PA 2.1	Defined Process 1 Waterfall Development	PA 2.1	PA 2.1	PA 2.1	PA 2.1	WG 1 - Project A	LI	LI	LI	
		PA 2.2	Defined Process 1 Waterfall Development	PA 2.2	PA 2.2	PA 2.2	PA 2.2	WG 1 - Project A	PI	PI	PI	

In this example, one BPL process (Development Implementation) is mapped to one Defined Process (Waterfall Development). The Defined Process was sampled once on one work group (WG) (project A) at the Foundation and the Bronze level. The base practices for outcome 1 were checked and findings raised (not important here). The team decided based on the findings that the outcome for the WG should be characterized as PI (suggesting multiple minor nonconformity or a major nonconformity). As there was only one outcome for this process the Outcome Characterization was therefore also PI. Because there was only one defined process the overall PA 1.1 for this process was also PI. The generic practices for PA 2.1 were checked and the overall PA 2.1 for the WG was considered LI suggesting some negative observations or a minor nonconformity. Again rolling this up is simple as there was only one WG gives the process PA 2.1 a characterization of LI as well. For the PA 2.2 the situation was not as good and again a number of minor nonconformities or a major nonconformity would have been raised resulting in the overall PI at the process level. Using the tables defined in section 8 the overall level for the process as implemented by the organization would be Level 0, i.e. failing to achieve TickITplus Foundation level.



# TickITplus – Core Scheme Requirements

Example 2: ‘Roll up’ – 2 work groups 1 defined process [REF004773]

Generic BPL Processes	Organization Level	Defined Process Attributes	Defined Process Level	Defined Process Attributes	Defined Process Outcome	WG Outcome Level	Implemented Process (WG)	WG Characterization	Outcome Characterization	PA Characterization	Defined Process Characterization	Process Level		
Process 1 Development Implementation	Foundation	PA 1.1	Defined Process 1 Waterfall Development	PA 1.1	Outcome WG1	Outcome 1	WG 1 - Project A	FI	FI	FI	FI	Level 2		
							WG 2 - Project B	FI						
					Outcome WG2	Outcome 1	WG 1 - Project A	LI	LI					
							WG 12- Project B	LI						
	Bronze	PA 2.1	Defined Process 1 Waterfall Development	PA 2.1	PA 2.1	PA 2.1	WG 1 - Project A	LI	LI	LI				
							WG 12- Project B	LI						
		PA 2.2	Defined Process 1 Waterfall Development	PA 2.2	PA 2.2	PA 2.2	WG 1 - Project A	PI	PI	PI				
							WG 2 - Project B	LI						
						PA 2.2	Defined Process 1 Waterfall Development	PA 2.2	PA 2.2		WG 1 - Project A		PI	PI
											WG 2 - Project B		LI	

In this situation there are two WGs (projects A and B) being considered for the same process as in example 1 above. At the outcome level (or PA 1.1 level) both WGs resulted in a FI characterization for their base practices and work products for the only outcome in the process. The roll up was simple as they were both the same and with no findings. Also, as there was only one defined process this allowed a simple roll up to the process level for PA 1.1 of FI. If the WG results had been different the team would have considered the findings and come to an agreement about the overall characterizations but remembering that it cannot be higher than the highest or lower than the lowest. For the Bronze level the results for PA 2.1 were similar on each WG but the results for PA 2.2 were different. The team decided that the findings on WG 1 were not sufficiently severe when compared to WG 2 that they rated LI for the Outcome Characterization which then rolled up to make the PA Characterization also LI. With FI at the Defined Process Characterization level for Foundation and LI at the Defined Process Characterization level for Bronze, the process is level 2.

# TickITplus – Core Scheme Requirements

Example 3: ‘Roll up’ – 3 work groups 2 defined processes [REF004774]

Generic BPL Processes	Organization Level	Defined Process Attributes	Defined Process Level	Defined Process Attributes	Defined Process Outcome	WG Outcome Level	Implemented Process (WG)	WG Characterization	Outcome Characterization	PA Characterization	Defined Process Characterization	Process Level
Process 1 Risk Management	Foundation	PA 1.1	Defined Process 1a Project Risk Management	PA 1.1	Outcome WG1	Outcome 1	WG 1 - Project A	PI	PI	PI	LI	Level 1
						Outcome 1	WG 2 - Project B	NI	NI			
					Outcome WG2	Outcome 1	WG 3 - Exec team	FI	FI			
			Defined Process 1b Corporate Risk Management	PA 1.1	Outcome WG3	Outcome 1	WG 3 - Exec team	FI	FI	FI		
						Outcome 1	WG 3 - Exec team	FI	FI			
					Outcome 1	WG 3 - Exec team	FI	FI				
	Bronze	PA 2.1	Defined Process 1a Project Risk Management	PA 2.1	PA 2.1	PA 2.1	WG 1 - Project A	LI	LI	LI	LI	
						PA 2.1	WG 2 - Project B	LI	LI			
			Defined Process 1b Corporate Risk Management	PA 2.1	PA 2.1	PA 2.1	WG 3 - Exec team	FI	FI	FI		
		PA 2.1				WG 3 - Exec team	FI	FI				
		PA 2.2	Defined Process 1a Project Risk Management	PA 2.2	PA 2.2	PA 2.2	WG 1 - Project A	PI	PI	PI		
						PA 2.2	WG 2 - Project B	PI	PI			
Defined Process 1b Corporate Risk Management	PA 2.2		PA 2.2	PA 2.2	WG 3 - Exec team	LI	LI	LI				
		PA 2.2		WG 3 - Exec team	LI	LI						

In this example there are two defined processes for the Risk Management process. During the assessment there were three WGs (two projects and the Exec team) included in the IPS. The projects demonstrated the Project Risk Management defined process and the Exec team demonstrated the Corporate Risk Management process. All three WGs demonstrated the Bronze level PAs (PA 2.1 and PA 2.2). The risk management process has only one outcome and the associated base practices and work

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products were checked on all WGs. For PA 1.1 the team decided that outcome 1 on the projects should be PI even though project B was NI probably because the project was small or had just started while project A was a major project. For the Exec team the base practices and work products could be demonstrated fully and the result was considered FI. Overall, however, the team decided that the PA 1.1 attribute for the process should be LI; maybe a little generous. The approach is followed for the Bronze level PAs in a similar manner.

### Example 4: ‘Roll up’ – 2 work groups 1 defined process 2 core outcomes [REF004775]

Generic BPL Processes	Organization Level	Defined Process Attributes	Defined Process Level	Defined Process Attributes	Defined Process Outcome	WG Outcome Level	Implemented Process (WG)	WG Characterization	Outcome Characterization	PA Characterization	Defined Process Characterization	Process Level
Process 3 Data & Record Management	Foundation	PA 1.1	Defined Process 3 Data Management	PA 1.1	Outcome WG1	Outcome 1	WG 1 - Project A	LI	PI	PI	PI	Level 0
						Outcome 2	WG 1 - Project A	PI				
						PA 2.1	Defined Process 3 Data Management	PA 2.1	PA 2.1	PA 2.1		
	Bronze	PA 2.2	Defined Process 3 Data Management	PA 2.2	PA 2.2	PA 2.2	WG 1 - Project A	LI	LI	LI	LI	
							PA 2.2	WG 1 - Project A	LI	LI	LI	

In this example the Data and Record Management process is being assessed and has two core (mandatory) outcomes which have been mapped on to one organization defined process called Data Management. Remember there is no requirement for the organization to call their processes the same as the BPL processes and in this case the Data Management process handles both data and records. The same approach as in the previous examples is applied except that in the case of two outcomes the team does not decide on the roll up; the lowest value is taken as shown above where the Outcome Characterization is PI even though Outcome 1 had LI.

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Example 5: ‘Roll up’– 3 work groups 2 defined processes 2 core outcomes [REF004776]

Generic BPL Processes	Organization Level	Defined Process Attributes	Defined Process Level	Defined Process Attributes	Defined Process Outcome	WG Outcome Level	Implemented Process (WG)	WG Characterization	Outcome Characterization	Defined Process Roll-up	Defined Process Characterization	Process Level	
Process 3 Data & Record Management	Foundation	PA 1.1	Defined Process 3a Unsecure Data Management	PA 1.1	Outcome WG1	Outcome 1	WG 1 - Project A	PI	NI	PI	LI	Level 1	
						Outcome 2	WG 2 - Project A	NI					
						Outcome WG2	Outcome 1	WG 1 - Project B					PI
							Outcome 2	WG 2 - Project B					PI
					Outcome WG3	Outcome 1	WG 1 - Project C	LI					
						Outcome 2	WG 1 - Project C	LI					
	Bronze	PA 2.1	Defined Process 3a Unsecure Data Management	PA 2.1	PA 2.1	PA 2.1	WG 1 - Project A	LI	LI	LI			
						PA 2.1	WG 2 - Project B	LI					
					Defined Process 3b Secure Data Management	PA 2.1	PA 2.1	PA 2.1	WG 3 - Project C		PI		PI
								PA 2.1	WG 3 - Project C		PI		PI
		PA 2.2	Defined Process 3a Unsecure Data Management	PA 2.2	PA 2.2	PA 2.2	WG 1 - Project A	PI	LI	LI			
						PA 2.2	WG 2 - Project B	LI					
Defined Process 3b Secure Data Management	PA 2.2	PA 2.2	PA 2.2	WG 3 - Project C	FI	FI	FI						

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In this final example the same process is considered as in the previous example (Data and Record Management) but in this case the organization has two defined processes (one for unsecure data management and one for secure data management). During the assessment three WGs were examined, two provided evidence of unsecure data management while the third provided evidence of the secure data management. The same assessment, characterization and roll-up approach is used as in all the previous examples.

Please note that the latter two examples (Example 4 and Example 5 use the Data and Record Management process taken from the BPL V1.1.3. [REF004778]

## Appendix G Assessment Coverage Index

Section 7.2 discussed the requirements for establishing the appropriate levels of assessment effort that should be allocated to conduct an effective assessment. The requirements are based around four main factors: [REF004780]

- the size of the TickITplus organization in scope [REF004782]
- the coverage represented by the IPS [REF004784]
- the scope represented by the number of defined processes and the level being assessed [REF004786]
- the effort, that of both registered Practitioners and Assessors, required to conduct the assessment. [REF004788]

As a starting point it defines some ‘boot-strap’ effort values for a process being considered at the various levels and in either of the modes (confirmation or exploration). [REF004790]

In planning the assessment the registered Assessor will need to ensure that the sample taken to demonstrate that the IMS is working effectively across the TickITplus scope provides sufficient coverage. The registered Assessor will also be balancing this with the practical logistics, specific situations and overall costs of completing an effective assessment. [REF004800]

A simple formula is used to calculate the ACI and a simple graph showing mean and range is made available by ITA based on feedback from assessments conducted over a period of time. The ACI is calculated as follows: [REF004810]

$$\text{Coverage Level (CL)} = \frac{\text{Number of people covered by the Implemented Process Sample (NPCIPS)}}{\text{Number of people within the TickITplus scope (NPTS)}} \quad [\text{REF004820}]$$

$$\text{Normalized Processes (NP)} = \frac{\text{Number of implemented processes checked in confirmation (NIPC) + number of implemented processes checked in exploration (NIPE)} * 2}{\quad} \quad [\text{REF004825}]$$

$$\text{Normalized Effort (NE)} = \frac{\text{Normalized Processes (NP)} * \text{level being assessed (LA)}^{\max 3}}{\text{Number of assessment hours (NAH)}} \quad [\text{REF004830}]$$

$$\text{Assessment Coverage Index (ACI)} = \frac{\text{Normalized Effort (NE)}}{\text{Coverage Level (CL)}} \quad [\text{REF004835}]$$

where: [REF004840]

- the number of people within the TickITplus scope (NPTS) represents all staff working within the bounds of the TickITplus scope. [REF004850]

- the number of people covered by the IPS (NPCIPS) represents the collective of all staff covered by the people sampled during the assessment. [REF004855]
- the number of assessment hours (NAH) represents the total time in hours that the assessment team uses in conducting the on-site assessment activities. [REF004860]
- the normalised processes (NP) represent the number of processes that the organization has defined to satisfy the processes required by the selected scope profile(s). This accommodates processes checked in confirmation mode (NICP) and in exploration mode (NIPE). [REF004865]
- the level being assessed (LA) is a numerical equivalence of the assessment level, i.e. Foundation level is 1, Bronze level is 2, Silver level is 3, but is limited to level 3 as the effort per process does not increase above level 3, only two more processes are included, MAT.1 for Gold and MAT.2 for Platinum. [REF004870]

The IPS usually involves work groups used to demonstrate the implementation of processes. A work group is a logical group of staff and managers, e.g. a project, a function, a support team, or a logical group of support teams. Often, organizations can define small groups of people as a project, and this can have an effect on the assessment sample size if simple projects are used. Therefore, on the basis that often these small 'projects' are managed by the programme or department manager, it is more appropriate to class the group of small 'projects' as a work group. This could be taken too far and everyone in the organization could be in one work group under the senior manager, which would be undesirable for assessment purposes. The key aspect for deciding the management level at which the work group can be defined revolves around the influence presented on how work is undertaken on a day-to-day basis, i.e. not simply through senior management review and action. An additional factor relates to the use of procedures and plans for carrying out the projects. If all the small 'projects' follow the same procedures and plans and are under the same management control, then this would suggest that they could be classed as a work group for the purposes of the assessment. [REF004880]

Note that all processes must be checked in all work groups and where a process is not applicable a justification is needed in the PAM and the process can be marked N/A. This is to ensure that process cherry-picking is not done, i.e. looking at one process from one work group and associated processes from other work groups and concluding that all processes work effectively together. This means in practice that associated processes must be checked for each relevant work group. For example, if the work group is a software development project then it would be expected that all Systems and Software Development and Support Type B processes would be applicable and would be checked, although potentially some later stage processes such as Integration Management and Transition and Release Management could be judged to be 'not yet implemented (NYI)'. [REF004885]

The number of people within the TickIT*plus* scope may or may not be the total staff of the organization. If, for example, an organization consists of 40 people all involved in the software development and maintenance of a product, then, if the Systems and Software Development and Maintenance Scope Profile were to be

selected, the number of people in the TickIT*plus* scope would also be 40. This could include management, administration, support, development, etc. but would not include support groups such as sales, marketing, finance, legal etc. [REF004890]

If the same organization were to pick the Product Validation, Quality and Measurement Scope Profile, which covers just the independent test and validation team consisting of a manager and six staff, the number of people covered within this TickIT*plus* scope could be around 10, say senior management, the manager, the six staff and a nominal number of administration staff – the exact figure would clearly depend on the actual situation. [REF004900]

In another example, an organization is involved in the design, manufacture and support of PC peripherals such as printers, and has 400 staff with only 40 involved in developing software and firmware for the product. If the Systems and Software Development and Support Scope Profile were to be selected, to cover just the software development and maintenance activities – the certification scope being something like ‘The design, development and maintenance of printer firmware and associated user software’, the number of people covered by the TickIT*plus* scope could be something like 45: the 40 staff directly involved and five other staff with a direct influence over the development group, for example senior management, administration and, maybe, some part of human resources and facilities. [REF004910]

The number of people covered by the IPS would represent the number of people covered by the sample of people involved in the assessment. For example, an organization may have 76 people involved in the TickIT*plus* scope, and these people are in four project teams made up of 12, 34, 22 and 8 people in each project. If one project were to be sampled, irrespective of the actual number of people interviewed, the number of people covered by the IPS would be the size of the project that those people belonged to, including the management chain. So, if the project manager, a developer, a tester and a support engineer from the project with 34 people were to be interviewed, then the sample coverage would be 34. [REF004920]

In this example, the coverage level, i.e. the number of people in the TickIT*plus* scope divided by the number of people covered by the IPS, would be  $34/76$  or 0.4473. [REF004930]

In the first example, with the organization of 40 people all involved in the TickIT*plus* scope, the ratio would be 1, and in the second example, with the Product Validation, Quality and Measurement Scope Profile, the ratio would also be 1, because in both of these examples, by selecting people to interview, the whole TickIT*plus* scope would potentially be represented. [REF004940]

The next element of the ACI calculation involves normalizing the effort against the scope. The concept of the ACI involves ensuring coverage by looking at the coverage level and the effort spent on the assessment, i.e. being able to ensure that for a similar coverage level there would be a comparable level of assessment effort. However, given a similar coverage level the amount of effort could vary depending on the number of defined processes in scope, the assessment mode for



the defined processes and the assessment level. If two organizations achieved a similar coverage level value but one organization was simply looking at the Product Validation, Quality and Measurement Scope Profile and conducting the assessment in confirmation mode and the other was actually looking at multiple Scope Profiles all in exploration mode, then the amount of effort would actually need to be higher for the second organization. This would potentially make it look as if the first organization had not received the required level of assessment effort. By calculating the Normalized Effort based on actual effort, the scope size in terms of number of defined processes and the assessment mode this can be taken into account.

[REF004945]

The number of assessment hours required to conduct the assessment is primarily driven by the number of implemented processes that require to be checked during the assessment, and, as a starting point, ITA provides a simple look-up table of hours per process at different levels, and using the two different assessment modes (confirmation and exploration). The number of implemented processes is the number of defined processes multiplied by the number of IPS work groups.

[REF004950]

Table 14 provides an initial ‘boot-strap’ set of hours for modes of assessment and levels being assessed. Please note that these are only initial values on which to base the final hours after appropriate analysis of the assessment factors, e.g. criticality, complexity, originality, etc. [REF004960]

Table 14: Hours effort per implemented process [REF004965]

Assessment mode	Foundation	Bronze	Silver	Gold	Platinum
Confirmation	0.5	1	1.5	1.5	1.5
Exploration	1	2	3	3	3

The important aspect here is to establish the number of defined processes that require sampling, not the number of BPL generic processes that have been included in the Scope Profile, although the two are connected. This means that if, for example, the organization has established that it needed two organizational processes to address the BPL generic process for Risk Management, then it would have two defined processes in this case. However, assuming that in the simple case there is a one-to-one mapping between the BPL generic practices in the selected Scope Profile and those defined processes in the organizational PRM, the number of processes to be sampled would be the same as the number in the selected Scope Profile. For example, if the Systems and Software Development and Support Scope Profile were selected, there would be 22 generic processes and hence 22 defined processes. Of these, some would be sampled once at the organizational level, e.g. Management Framework, Corporate Management and Legal, and others may have to be sampled at the working level. Given a simple situation where it has been acceptable to sample just one project, then the number of implemented processes would be 22. If the IPS includes two projects (in order to increase the coverage level), and on the projects both Risk Management and Data Management need to be checked, then the number of implemented processes

would be seven Type A processes checked at the organizational level once and 34 Type A and Type B processes checked at the project level (15 Type B and 2 Type A checked on each project), giving a total of 41 implemented processes. [REF004970]

Once the number of implemented processes is calculated, the initial value for the effort required can be calculated from Table 15. So, given the example of the organization of four projects and assuming a Foundation level assessment in the confirmation mode, the total estimated effort would be 41 multiplied by 0.5 hour, giving 20.5 hours or approximately 3 days for an assessment team of one, a registered Assessor. This would be rounded up to the nearest 7 hour day, or half 7 hour day if half days are accommodated, to give 21 hours. Remember this is not a precise science and a lot of team judgement is needed. [REF004980]

The ACI can then be calculated by dividing the assessment coverage ratio by the assessment hours, and in the example of the four-project organization above, these would be: [REF004990]

- coverage level = 0.4473 [REF004992]
- normalized processes = 41 as they are all in confirmation mode [REF004994]
- normalized effort =  $(41 * 1) / 21 = 1.9523$  [REF004996]
- ACI =  $1.9523 / 0.4473 = 4.3646$  [REF004998]

Table 15 provides 31 ACI examples, with the ones that suggest some concern over the level of assessment coverage being highlighted. [REF005000]

Figure 6 shows the statistical analysis of the acceptable ACI based on the mean and 2 standard deviations. From this, potentially unacceptable assessments can be easily identified, although it is noted that these may have been justified by the CB as requiring special arrangements. [REF005010]

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Table 15: Sample Assessment Coverage Index calculations [REF005005]

Org	Total Staff	NTPS	NPCIPS	CL	NIPC	NIPE	NP	LA	Calculated NAH	Days Calculated	Days Chosen	Selected NAH	NE	ACI	SPs	WG	Level	Comments
A1	40	20	20	1.00	22	0	22	1	11	2	2	14	1.57	1.57	SSDS	1WG	1	
A2	40	20	20	1.00	13	0	13	1	6.5	1	1	7	1.86	1.86	PVQM	Org, 1 PVQM WG	1	
A3	40	35	25	0.71	13	0	13	1	6.5	1	1	7	1.86	2.60	PVQM	Org, 1 PVQM WG	1	
A4	40	35	20	0.57	13	0	13	1	6.5	1	1	7	1.86	3.25	PVQM	Org, 1 SSDS WG	1	
A5	40	20	20	1.00	22	0	22	1	11	2	1	7	3.14	3.14	SSDS	1WG	1	Reducing days OK here
A6	40	35	5	0.14	13	0	13	1	6.5	1	1	7	1.86	13.00	PVQM	Org, 1 SSDS WG	1	Reducing Sample
B1	100	90	90	1.00	22	0	22	1	11	2	2	14	1.57	1.57	SSDS	Org, 1 SSDS WG	1	
B2	100	90	90	1.00	37	0	37	1	18.5	3	3	21	1.76	1.76	SSDS	Org, 2 SSDS WG	1	
B3	100	90	90	1.00	37	0	37	2	37	6	6	42	1.76	1.76	SSDS	Org, 2 SSDS WG	2	
B4	100	90	90	1.00	37	0	37	3	55.5	8	8	56	1.98	1.98	SSDS	Org, 2 SSDS WG	3	
B5	100	90	60	0.67	37	0	37	3	55.5	8	6	42	2.64	3.96	SSDS	Org, 2 SSDS WG	2	
B6	100	90	60	0.67	52	0	52	3	78	12	10	70	2.23	3.34	SSDS	Org, 3 SSDS WG	3	
B7	100	90	20	0.22	22	0	22	1	11	2	2	14	1.57	7.07	SSDS	Org, 1 SSDS WG	1	Reducing sample
C1	400	200	100	0.50	37	0	37	1	18.5	3	3	21	1.76	3.52	SSDS	Org, 2 SSDS WG	1	
C2	400	200	100	0.50	37	0	37	2	37	6	6	42	1.76	3.52	SSDS	Org, 2 SSDS WG	2	
C3	400	200	150	0.75	52	0	52	1	26	4	4	28	1.86	2.48	SSDS	Org, 3 SSDS WG	1	
C4	400	200	150	0.75	52	0	52	2	52	8	7	49	2.12	2.83	SSDS	Org, 3 SSDS WG	2	
C5	400	200	190	0.95	67	0	67	2	67	10	10	70	1.91	2.02	SSDS	Org, 4 SSDS WG	2	
C6	400	200	50	0.25	37	0	37	1	18.5	3	2	14	2.64	10.57	SSDS	Org, 2 SSDS WG	1	Reducing sample and days
C7	400	200	150	0.75	52	0	52	1	26	4	2	14	3.71	4.95	SSDS	Org, 3 SSDS WG	1	Reducing days
C8	400	200	150	0.75	52	0	52	1	26	4	1	7	7.43	9.90	SSDS	Org, 3 SSDS WG	1	Reducing days
D1	1000	450	150	0.33	37	0	37	1	18.5	3	4	28	1.32	3.96	SSDS	Org, 2 SSDS WG	1	
D2	1000	450	320	0.71	52	0	52	1	26	4	4	28	1.86	2.61	SSDS	Org, 3 SSDS WG	1	
D3	1000	450	320	0.71	65	0	65	1	32.5	5	5	35	1.86	2.61	SSDS, SM	Org, 2 SSDS WG, 1 SM WG	1	
D4	1000	450	150	0.33	37	0	37	1	18.5	3	2	14	2.64	7.93	SSDS	Org, 2 SSDS WG	1	Reducing days
E1	20000	790	350	0.44	22	0	22	1	11	2	2	14	1.57	3.55	SSDS, SM	Org, 1 SSDS WG	1	
E2	20000	790	350	0.44	52	0	52	1	26	4	5	35	1.49	3.35	SSDS, SM	Org, 3 SSDS WG	1	
E3	20000	790	450	0.57	65	0	65	1	32.5	5	5	35	1.86	3.26	SSDS, SM	Org, 4 SSDS WG	1	
E4	20000	790	275	0.35	52	0	52	1	26	4	6	42	1.24	3.56	SSDS, SM	Org, 3 SSDS WG	1	
E5	20000	790	450	0.57	52	0	52	1	26	4	4	28	1.86	3.26	SSDS, SM	Org, 3 SSDS WG	1	
E6	20000	790	120	0.15	22	0	22	1	11	2	2	14	1.57	10.35	SSDS, SM	Org, 1 SSDS WG	1	Reducing sample and days

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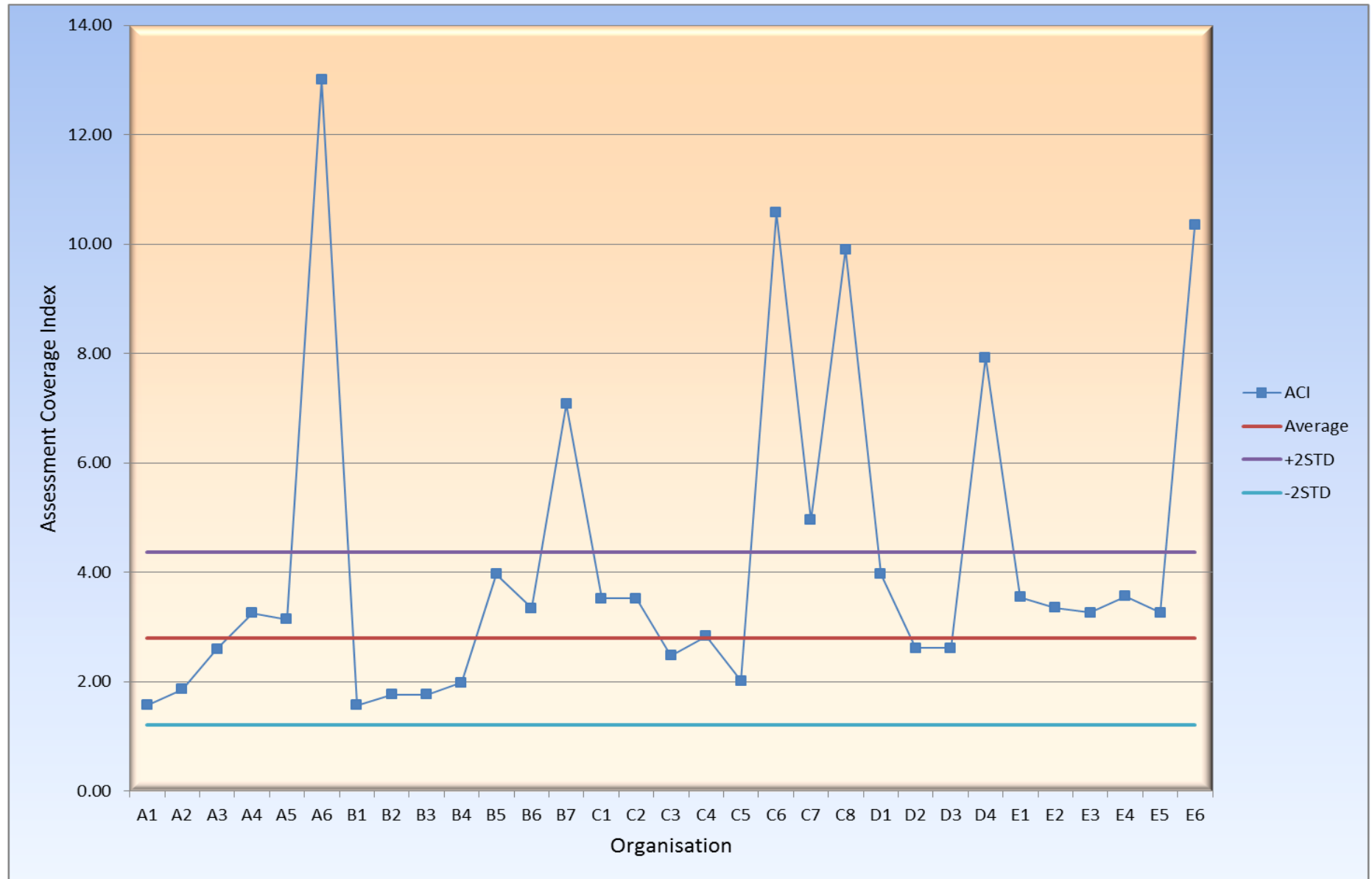


Figure 6: Statistical coverage of the ACI [REF005015]

## Appendix H Guidance on conducting the assessment

### H.1 Opening meeting

No additional guidance needed beyond that given in ISO/IEC 17021-1. [REF005020]

### H.2 Process verification

This is part of the on-site assessment where the defined processes are verified against the PAM by examining the IPS at the desired capability level using the agreed assessment mode (i.e. confirmation, exploration or a combination).

[REF005030]

The evidence to be sought is defined by the selected capability level and the application of the PAs and generic practices defined within ISO/IEC 15504-2 (see below). [REF005040]

For example, at Foundation level, there is one PA (PA 1.1 – the Process Performance Attribute) which consists of just one generic practice (GP 1.1.1 – the process achieves its defined outcomes). To demonstrate this in an assessment, it would be necessary to seek or confirm that evidence of the process base practices and work products exist and are effective for the IPS. [REF005050]

Whilst it is possible to use the process outcomes as an indication of process effectiveness at all levels, the organization only needs to formally demonstrate achievement of process outcomes at level 3 and higher. The process outcomes have been written in absolute terms, i.e. in terms of demonstrating what a perfect process might achieve. It was never expected that every use of the process would result in this perfect result. However, it was expected that given process improvements, that the organization's use of the process would trend towards this ideal goal. This trend can only be confirmed if there is a standard set of processes which are used, with approved tailoring, across the organization. This requirement first exists at the Silver level and therefore it is only when the organization reaches the Silver level that the process outcomes should be clearly demonstrated.

[REF005055]

The approach to conducting this activity is not defined in this document, and in practice many different approaches could be possible. For confirmation mode assessments, the assessment team might start by reviewing all the evidence and then conducting a series of confirming interviews. Alternatively, the evidence review and interviews could be conducted at the same time, or the interviews could be conducted first followed by subsequent confirmation through the evidence. [REF005060]

It is during this activity that potential issues, concerns and problems may be identified, and these need to be raised as potential findings for consideration by the full assessment team during the team agreement on findings session. [REF005070]

It is also during this activity that potential good practices might be discovered that could benefit other areas of the organization, if formally reported. [REF005080]

This document does not mandate how these findings are recorded at this stage, but, as a minimum, the following information should be recorded, to allow the team to consider the potential findings as formal findings to be reported: [REF005090]

- the nature of the finding [REF005100]
- the severity of the finding with supporting evidence, e.g. major, minor, incident, observation, good practice or concern [REF005110]
- the particular process element, e.g. purpose, outcome, base practice or work product [REF005120]
- the particular generic practice, e.g. PA 2.1, GP 2.1.3 – the performance of the process is adjusted to meet plans [REF005130]
- the particular clause of the requirement or reference standard [REF005140]
- the IPS work group name or reference and the name of any person involved during the identification of the finding. [REF005150]

Note that an individual PAM containing a specific IPS work group could be allocated to each team member as a mechanism for recording the results of the verification and the proposed findings. [REF005160]

### H.3 Team agreement on findings (where a team is involved)

Because achieving PAs results from operating base practices within processes, if nonconformities are being raised on PAs, due consideration should be given to raising associated nonconformities on the base practices of the originating process. [REF005170]

For example, PA 2.2, Work Product Management, at the Bronze level includes a generic practice requiring work products to be identified, documented and controlled. This PA and the example generic practice is applicable to all in-scope processes when the Bronze level is being assessed. If, for example, this generic practice was found not to be in place for the Architectural Design process, it would clearly result in a minor nonconformity against this process at this level. If this situation was, for example, evident on all work groups from the IPS, a major nonconformity should be raised. [REF005180]

However, as the Data Management process is responsible for generally ensuring that work products are effectively identified, documented and controlled, the root of the problem may actually exist in this process at the base practice level, and therefore it might be more appropriate to raise a major nonconformity on this process, especially if the same generic practice was failing on other processes as well. [REF005190]

### H.4 Report generation

No additional guidance needed. [REF005200]

### H.5 Next assessment planning

No additional guidance needed. [REF005210]

## H.6 Closing meeting

No additional guidance needed beyond that given in ISO/IEC 17021-1. [REF005220]

## Appendix I Process capability levels

This appendix provides details on the process capability levels and the PAs, and their associated generic practices. These have been based closely on ISO/IEC 15504-2. [REF005230]

As the level of TickITplus increases, additional capability PAs need to be assessed for each defined process outcome required by the scope. All of the following PAs are added to the PAM as appropriate for each level, with each attribute made up of a number of generic practices. Note that it is not necessary to rate each generic practice, but, rather, that these should be checked and confirmed in order to rate the associated PA for each process. If necessary, nonconformity references can be made against specific generic practices, if this helps to clarify the issue. [REF005240]

### I.1 Process capability at the Foundation level

Within TickITplus there is no capability assessment undertaken at the Foundation level, although technically there is a PA with one generic practice. [REF005250]

#### **PA 1.1 Process Performance Attribute**

The Process Performance Attribute is a measure of the extent to which the process purpose is achieved. It is assessed by confirming that the base practices are undertaken, that work products exist and are effective, and that the process purpose is achieved. [REF005260]

### I.2 Process capability at the Bronze level

There are two generic-type Process Performance Attributes at the Bronze level that relate to the determination of a managed process environment, as shown below. [REF005270]

#### **PA2.1 Performance Management Attribute**

This is a measure of the extent to which the process performance is effectively managed. It is assessed using the following generic practices: [REF005280]

- GP 2.1.1 Clear identification of process performance objectives [REF005290]
- GP 2.1.2 Planning and monitoring the process performance against the objectives is performed [REF005300]
- GP 2.1.3 The extent to which process performance is adjusted to meet plans [REF005310]
- GP 2.1.4 The definition of responsibilities and authorities for performing the process [REF005320]
- GP 2.1.5 The identification and availability of resources needed to perform the process [REF005330]
- GP 2.1.6 The management of the interfaces between processes and between users of the processes [REF005340]



### ***PA2.2 Work Product Management Attribute***

This is a measure of the extent to which work products produced or used by the process are effectively managed. It is assessed using the following generic practices: [REF005350]

- GP 2.2.1 A definition of the requirements for the work products [REF005360]
- GP 2.2.2 A definition of the requirements for documentation and control of the work products [REF005370]
- GP 2.2.3 The controls exhibited over the work products [REF005380]
- GP 2.2.4 The review and adjustments made to work products [REF005390]

## **I.3 Process capability at the Silver level**

There are two generic-type Process Performance Attributes at the Silver level that relate to the determination of an established process environment, as shown below. [REF005400]

### ***PA3.1 Process Definition Attribute***

This is a measure of the extent to which a standard process is maintained to support the deployment of the defined process. It is assessed using the following generic practices: [REF005410]

- GP 3.1.1 The extent to which the standard process is defined [REF005420]
- GP 3.1.2 The extent to which the integration of processes is achieved in terms of sequences and interactions [REF005430]
- GP 3.1.3 An identification of the roles and competencies required to perform the standard process [REF005440]
- GP 3.1.4 An identification of the required infrastructure and work environment for performing the standard process [REF005450]
- GP 3.1.5 A determination of suitable methods to monitor the effectiveness and suitability of the standard process [REF005460]

### ***PA3.2 Process Deployment Attribute***

This is a measure of the extent to which the standard process is effectively deployed as defined. It is assessed using the following generic practices: [REF005470]

- GP 3.2.1 Deployment of the defined process that satisfies the specific requirements of use of the standard process [REF005480]
- GP 3.2.2 The assigning and communication of roles, responsibilities and authorities for performing the defined process [REF005490]
- GP 3.2.3 Ensuring that the necessary competencies are utilized when performing the defined process [REF005500]
- GP 3.2.4 The provision of resources and information to support the performance of the defined process [REF005510]
- GP 3.2.5 The provision of an adequate process infrastructure to support the performance of the defined process [REF005520]

- GP 3.2.6 The collection and analysis of data concerning the performance of the process to demonstrate its suitability and effectiveness [REF005530]

#### I.4 Process capability at the Gold level

There are two generic-type Process Performance Attributes at the Gold level that relate to the determination of a predictable process environment, as shown below. [REF005540]

##### **PA4.1 Process Measurement Attribute**

A measure of the extent to which measurement results are used to ensure that the process performance meets or supports the defined objectives and business goals. It is assessed using the following generic practices: [REF005550]

- GP 4.1.1 The identification of process information needs in respect of business goals [REF005560]
- GP 4.1.2 The derivation of process measurement objectives from the information needs [REF005570]
- GP 4.1.3 The establishment of quantifiable performance objectives in line with business objectives [REF005580]
- GP 4.1.4 The identification of product and process measures that support the achievement of performance requirements [REF005590]
- GP 4.1.5 The actual collection of product and process measurement results through performing the defined process [REF005600]
- GP 4.1.6 The utilization of results of the defined measurements to monitor and verify the achievement of process performance objectives [REF005610]

##### **PA4.2 Process Control Attribute**

A measure of the extent to which the process is quantitatively managed: to provide stability, capability and predictability within the defined limits. It is assessed using the following generic practices: [REF005620]

- GP 4.2.1 A determination of the analysis and control techniques appropriate to control process performance [REF005630]
- GP 4.2.2 A definition of the parameters needed to control process performance [REF005640]
- GP 4.2.3 Performing an analysis of product and process measurement results to identify variations in performance [REF005650]
- GP 4.2.4 The identification and implementation of corrective actions to address identified and assignable causes of nonconformities [REF005660]
- GP 4.2.5 To re-establish control limits following corrective actions [REF005670]

#### I.5 Process capability at the Platinum level

There are two generic-type Process Performance Attributes at the Platinum level that relate to the determination and implementation of an optimized process environment, as shown below. [REF005680]

### ***PA5.1 Process Innovation Attribute***

A measure of the extent to which changes to the process are identified: from the analysis of common causes of variation in performance and from investigations of various innovative approaches to the definition and deployment of the process. It is assessed using the following generic practices: [REF005690]

- GP 5.1.1 Definition of the process improvement objectives [REF005700]
- GP 5.1.2 Analysis of the measurement data from the process to identify real and potential variations in performance [REF005710]
- GP 5.1.3 The identification of improvement opportunities based on innovation and best practices [REF005720]
- GP 5.1.4 The derivation and analysis of improvement opportunities for the process based on new technologies and process concepts [REF005730]
- GP 5.1.5 The definition of an implementation strategy based on long-term improvement objectives [REF005740]

### ***PA5.2 Process Optimization Attribute***

A measure of the extent to which changes to the process definition, management and performance result in effective contributions to the relevant improvement objectives. It is assessed using the following generic practices: [REF005750]

- GP 5.2.1 Assessing the impact of each proposed change against the objectives of the defined and standard processes [REF005760]
- GP 5.2.2 Managing the implementation of agreed changes according to implementation strategy [REF005770]
- GP 5.2.3 Evaluation of the effectiveness of the process change on the basis of actual performance against improvement and business objectives [REF005780]

## Appendix J Core Scheme Requirements

The following provides a list of all defined requirements in the CSR. [REF005790]

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