INTERNATIONAL STANDARD

ISO/IEC 30105-8

Information technology — IT Enabled Services-Business Process Outsourcing (ITES-BPO) lifecycle processes —

Part 8:
Continual performance improvement (CPI) of ITES-BPO

Technologies de l'information — Processus du cycle de vie de la délocalisation du processus d'affaires des services activés par IT —

Partie 8: Amélioration continue des performances de la délocalisation du processus d'affaires des services activés par IT

Contents

Page

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see https://patents.iec.ch).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 40, *IT Service Management and IT Governance*.

A list of all parts in the ISO/IEC 30105 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

IT Enabled Services-Business Process Outsourcing (ITES-BPO) services encompass the delegation of one or more IT enabled business processes to a service provider who uses appropriate technology to deliver that service. Such a service provider manages, delivers, improves and administers the outsourced business processes in accordance with predefined and measurable performance metrics. This covers diverse business process areas such as finance, human resource management, administration, healthcare, banking and financial services, supply chain management, travel and hospitality, media, market research, analytics, telecommunication, manufacturing, etc. These services provide business solutions to customers across the globe and form part of the core service delivery chain for customers.

ISO/IEC 30105-1 defines more than 30 business processes for the ITES-BPO industry, including the TEN8 continual improvement process. The continual improvement process has been further elaborated in this document for ITES-BPO service providers who want to effectively achieve business service performance goals by implementing the continual performance improvement (CPI) methodology.

The CPI methodology consists of a CPI repository (see 5.4) and an assessment method for ITES-BPO service delivery (see 5.3), based on identified service performance criteria (see 5.2). The CPI methodology results in an assessment score for the ITES-BPO service delivery that supports the prioritization of business service performance improvement opportunities. Through the successful implementation of the CPI methodology, with additional base practices and work products or characteristics of work products from service delivery execution, service delivery reporting, solution development, change management, audit management and continual improvement, ITES-BPO service providers will be able to enjoy the following benefits:

a) identification and actioned analyses of improvement opportunities;

b) planning and implementation of continual improvement programmes;

c) selection of specific objectives and goals for the programme based on priority and value added;

d) monitoring and review of programmes against objectives;

e) communication of progress to relevant stakeholders;

f) involvement of the customer organization as appropriate;

g) analysis and reporting on the impact of changes, issues, threats and improvements on continual improvement policy and measures.

Information technology — IT Enabled Services-Business Process Outsourcing (ITES-BPO) lifecycle processes —

Part 8:
Continual performance improvement (CPI) of ITES-BPO

1 Scope

This document specifies a continual performance improvement (CPI) methodology and its major elements, which extend the already-defined continual improvement process (TEN8) in ISO/IEC 30105-1. This document helps ITES-BPO service providers to improve their performance by assessing service delivery.

This document does not define technologies and tools for implementing the CPI methodology.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
ITES-BPO service adaptability
degree to which a service can be configured or be modified to meet new needs

Note 1 to entry: Adaptability includes the scalability of internal capacity (e.g. screen fields, tables, transaction volumes, report formats, etc.).

Note 2 to entry: Adaptations include those carried out by specialized support staff, and those carried out by business or operational staff, or end users.

Note 3 to entry: If the service is to be adapted by the end user, adaptability corresponds to suitability for individualization as defined in ISO 9241-110.

[SOURCE: ISO/IEC TS 25011:2017, 3.2.7, modified — "IT" has been replaced by "ITES-BPO" in the preferred term. "IT service" has been replaced by "service" in the definition and "can configure itself" has been replaced by "can be configured" in the definition. Notes 1 - 3 to entry have been added.]

3.2
transparency
property of a system or process to imply openness and accountability

[SOURCE: ISO/IEC 27036-3:2013, 3.3]

3.3
stability
degree to which a service performs to agreed levels, regardless of its context

Note 1 to entry: The resilience is the capability of a service to perform to agreed level in a disruption context.

Note 2 to entry: The accessibility is the capability of a service to perform to agreed level in a usability context.

3.4
ITES-BPO service reliability
degree to which an ITES-BPO service provides consistent outcomes and performance

[SOURCE: ISO/IEC TS 25011:2017, 3.2.4, modified — "IT" has been replaced by "ITES-BPO" in the preferred term. "IT service" has been replaced by "ITES-BPO service" in the definition and "consistent and stable IT service outcomes" has been replaced by "consistent outcomes and performance" in the definition.]

3.5
business service performance
activity that helps an organization to achieve business goals based on key performance indicators

Note 1 to entry: The activity is closely connected with the management of business service competencies.

3.6
continual performance improvement
CPI
methodology providing means to align business service performance and ITES-BPO service delivery

3.7
service performance criteria
set of pre-determined conditions used to assess the service delivery for improvement

4   CPI interrelationship with the ISO/IEC 30105-1 process reference model (PRM) and the ISO/IEC 30105-2 process assessment model (PAM)

4.1   General

ISO/IEC 30105-1 specifies the lifecycle process requirements involved in the ITES-BPO industry. Alignment to ISO/IEC 30105-1 can improve consistency, delivery quality and predictability in delivery of services. For the ITES-BPO organization, continual performance improvement is essential to successful operation and provides great value to the customer. Using CPI, performance-based economic risks and errors related to performance issues can be identified, then an action plan can be implemented to solve these issues. This methodology can elevate an ITES-BPO service provider's performance improvements and facilitate the completion of work products (WPs) that affect processes across the entire ITES-BPO lifecycle.

Implementation of this document is not mandatory when a maturity assessment is conducted for an ITES-BPO service organization. However, implementing this document is recommended when seeking to improve business service performance, from the ITES-BPO service delivery perspective.

4.2   CPI, PRM and PAM

The ISO/IEC 30105–1 PRM defines the process categories that are included in the process dimension of the PAM for ITES-BPO. It includes all aspects of an ITES-BPO service, from developing an ITES-BPO solution, through service delivery, to transitioning out. It includes the leadership, relationship management and enabling processes that support the outsourced business across its lifecycle.

The continual improvement process (TEN8), as shown in , is an important part of tactical enablement, which drives improvement of the ITES-BPO service delivery processes.

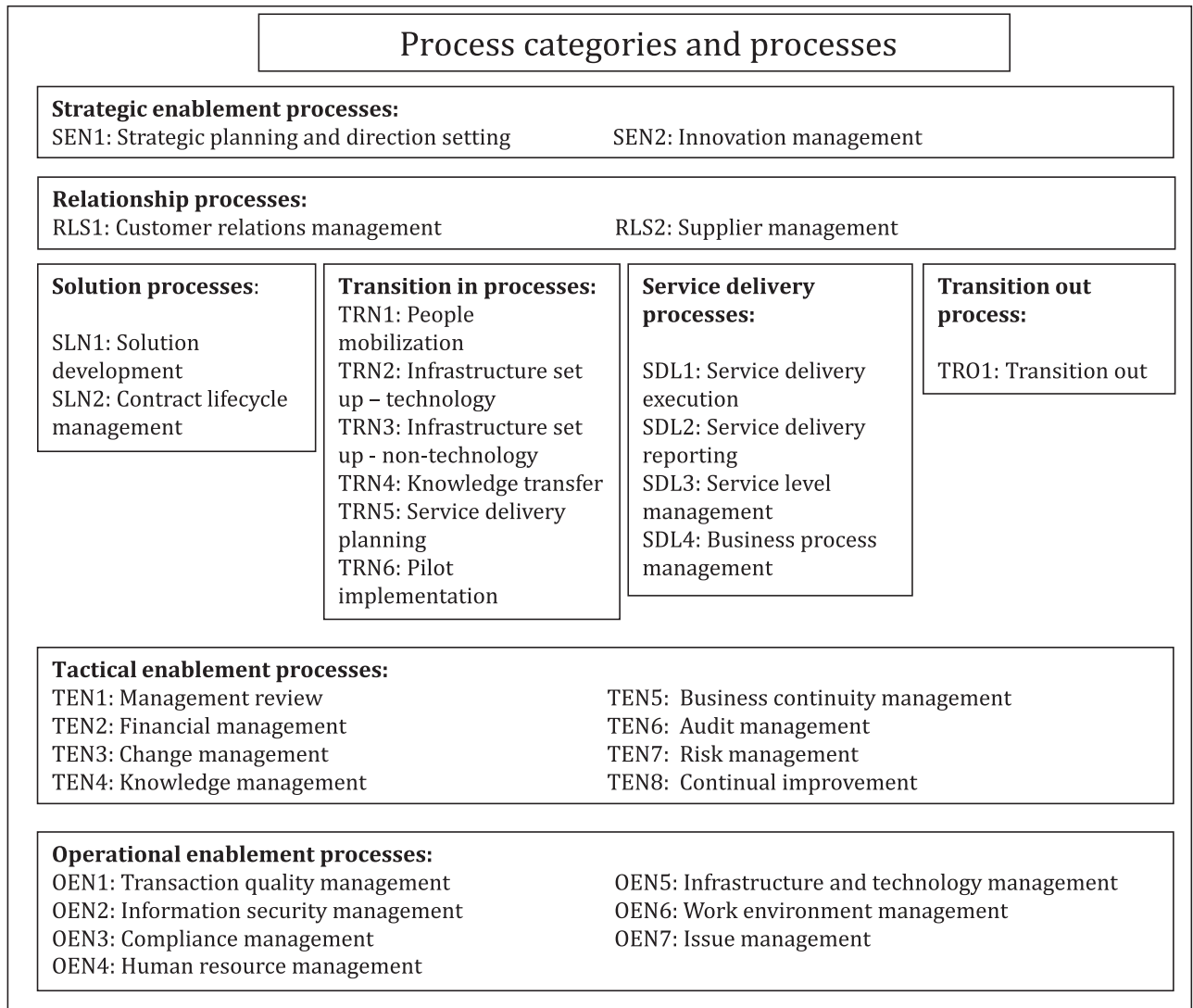| Process categories and processes			
Strategic enablement processes: SEN1: Strategic planning and direction setting		SEN2: Innovation management	
Relationship processes: RLS1: Customer relations management		RLS2: Supplier management	
Solution processes: SLN1: Solution development SLN2: Contract lifecycle management	**Transition in processes:** TRN1: People mobilization TRN2: Infrastructure set up – technology TRN3: Infrastructure set up - non-technology TRN4: Knowledge transfer TRN5: Service delivery planning TRN6: Pilot implementation	**Service delivery processes:** SDL1: Service delivery execution SDL2: Service delivery reporting SDL3: Service level management SDL4: Business process management	**Transition out process:** TRO1: Transition out
Tactical enablement processes: TEN1: Management review TEN2: Financial management TEN3: Change management TEN4: Knowledge management		TEN5: Business continuity management TEN6: Audit management TEN7: Risk management TEN8: Continual improvement	
Operational enablement processes: OEN1: Transaction quality management OEN2: Information security management OEN3: Compliance management OEN4: Human resource management		OEN5: Infrastructure and technology management OEN6: Work environment management OEN7: Issue management	

Figure 1 — ITES-BPO lifecycle processes and categories

The ISO/IEC 30105-2 PAM provides indicators to measure the ITES-BPO processes achievement and capability.

Types of process performance indicators are:

— base practice (BP);

— work product (WP).

BP performance indicates the extent of achievement of the process purpose and process outcomes. WPs are either used or produced (or both) when performing the process. BP and WP are the basis for improving the process maturity of ITES-BPO organization that forms the organization maturity level.

The CPI methodology focuses on ITES-BPO service performance improvement.

CPI is based on three elements:

— performance criteria that are related to BP and WP as defined in ISO/IEC 30105-2;

— a CPI repository;

— a CPI assessment method that evaluates ITES-BPO service delivery through their lifecycle.

The CPI methodology can be used to determine critical success criteria, linked to business service performance. By aligning to ISO/IEC 30105-1, and in particular SEN1 (see Figure 1), strategic planning and direction setting, an organization can identify business objectives and strategies. These provide the focus for determining an organization's service performance criteria, and for understanding how these criteria can be used to improve effectiveness and efficiency of services. Where an organization is not yet aligned to ISO/IEC 30105-1, past issues can potentially provide insights that facilitate discussions to determine service performance criteria. The conclusions provide data that:

— evolves into success stories;

— clarifies the benefits of achieving maturity model improvement by identifying WPs and BPs whose implementation impacts on the performance of services.

5   CPI components

5.1   General

To improve the business service performance of ITES-BPO services, service providers should analyse root causes of past and current issues and threats across all ITES-BPO service delivery.

To achieve this objective, 5.2 introduces new WPs that are required by the CPI methodology:

— root causes review report;

— service performance criteria review report;

— lifecycle continual performance improvement.

These WPs involve:

— inputs to ITES-BPO processes such as the continual improvement process (TEN8);

— outputs from ITES-BPO processes such as the issue management process (OEN7) or the risk management process (TEN7).

5.2   Performance criteria for ITES-BPO services

5.2.1   Criticality of root cause of issues and threats

To identify issues and threats, ITES-BPO service providers should review customer requirements and expectations, service delivery plans, issues, etc.

The types of issues and threats that can occur are varied, and include occurrences such as service disruptions, as well as more far-reaching occurrences that can have financial, commercial or contractual impacts.

A service provider should identify the root cause of these issues and threats for ITES-BPO service delivery.

For instance, an ITES-BPO service help desk can encounter productivity issues caused by a lack of procedures, or an ITES-BPO manufacturing service can encounter quality issues caused by obsolete procedures.

These examples highlight two different issues that have two causes with two different characteristics of the same WP: standard operating procedures (WP ID 5.16 as documented in ISO/IEC 30105-2).

The CPI methodology introduces the "STAR" (stability, transparency, adaptability and reliability) categories as a template to help service providers to classify their root causes. The STAR categories can be tailored.

NOTE   ITES-BPO service adaptability and ITES-BPO service reliability categories will be respectively quoted as adaptability and reliability to remain consistent with the other categories (stability and transparency).

Table 1 describes the STAR categories.

Table 1 — STAR categories

STAR categories	Description
Stability category	Root cause should be classified in the stability category if events or changes in the ITES-BPO service environment impact the ITES-BPO service delivery.
Transparency category	Root cause should be classified in the transparency category if it is related to performance monitoring and reporting in the ITES-BPO service delivery.
Adaptability category	Root cause should be classified in the adaptability category if new service performance objectives or new customer needs and expectations are not achieved through service execution and environment performance, as planned, and if service reconfiguration is required.
Reliability category	Root cause should be classified in the reliability category if it is related to the ITES-BPO service not performing as planned under specified conditions for a specified period of time.

Service providers can use subcategories to simplify the interpretation and use of the root cause classification. These subcategories can be related to the context of the organization (for example, reliability root cause per business-units, per business segment or per service line).

The criticality of a root cause depends on the impact on the service and frequency of the issues and threats.

It is possible for a root cause to be identified in more than one category. In this case, its criticality can be added to its categories.

The criticality of the STAR categories and subcategories are the aggregated result of the associated root causes criticalities. Service providers should use category and subcategory criticalities to identify root cause patterns and prioritize the resolution of issues and threats. Service providers should include these criticalities in the root cause review report.

The adequacy and suitability of root cause criticalities should be continually reviewed. The root cause review report is a new WP for the continual improvement process (TEN8).

5.2.2   Defining service performance criteria

Service providers should use the root causes review report to select the associated WPs defined in the ISO/IEC 30105-2.

The criticality of root causes helps the service providers to identify the WPs whose improvement can resolve their main issues and threats.

To identify improvement opportunities, service providers should perform a gap analysis between critical root causes and selected WP characteristics.

The efficiency of the issues and threats resolutions should be evaluated to validate the gap analysis output.

Service providers should use the gap analysis output to define a set of requirements to assess their ITES-BPO service delivery. These requirements are the service performance criteria.

Service performance criteria can be qualitative (e.g. acceptance criteria) or quantitative (e.g. thresholds).

The adequacy and suitability of service performance criteria should be continually reviewed. The service performance criteria review report is a new WP for the continual improvement process (TEN8).

Figure 2 illustrates the steps for defining service performance criteria.
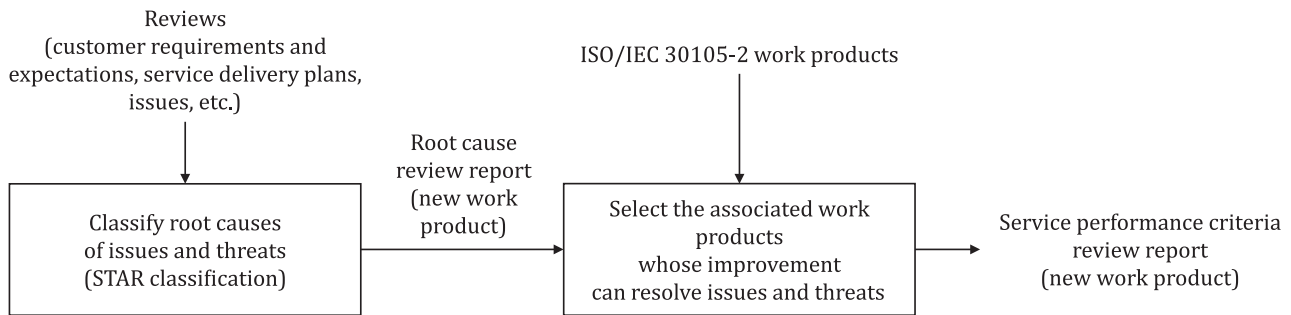
Figure 2 — Steps to define service performance criteria

5.2.3   Informative case study: service performance criteria determination

5.2.3.1   General

This subclause provides an informative case study of service performance criteria determination (see 5.2.2), its structure is:

— context;

— root causes' criticality;

— root causes and WPs mapping;

— service performance criteria determination.

Root cause and weight of importance of issues and threats are indicative and depend on the service provider data and situation.

5.2.3.2   Context

To define its service performance criteria, a service provider classifies the root causes of its issues and threats using the STAR categories. Figure 3 illustrates the fishbone diagram of these root causes and provides the weight of importance of issues and threats per root cause.

Key

| % | volume |

Figure 3 — Fishbone diagram of the volume of root causes of issues and threats

The service provider is then able to:

— use the impact of these root causes to calculate criticality, which is identified during the issues' reviews;
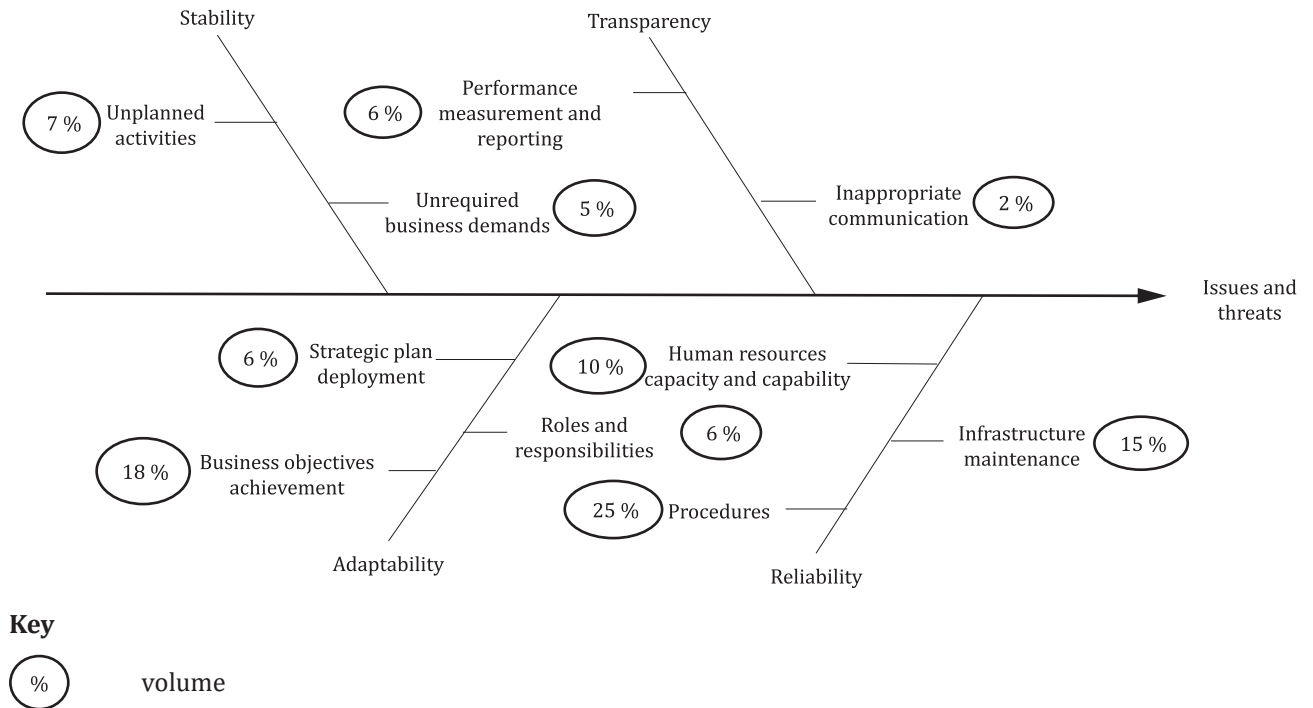
— select the associated WP's characteristics, which are defined in ISO/IEC 30105-2.

In the informative case study, the impacts of these root causes are decision making, brand, productivity, competition, customer satisfaction and quality, which are critical to an ITES-BPO provider's business service performance.

The service provider can then prioritize the impacts. For this informative case study, Table 2 shows indicative impact and priority which depend on the service provider data and situation.

Table 2 — Example of impact prioritization

Impact	Priority
Decision making	High (3)
Brand	High (3)
Productivity	High (3)
Competition	High (3)
Customer satisfaction	Medium (2)
Quality	Medium (2)

5.2.3.3   Root causes' criticality

The criticality of root causes can then be determined based on their impact and their weight of importance. The results illustrated in Table 3 are based on the indicative weights of importance shown in Figure 3 and indicative impact described in Table 2.

Table 3 — Example of determination of root causes criticality

Root causes	Weight of importance (based on Figure 3)	Impact (based on Table 2)	Criticality (weight of importance × impact)
Stability – unplanned activities	7 %	Customer satisfaction (2): defect impacting customers Productivity (3): lack of ITES-BPO service's efficiency and effectiveness	35 [7×(3+2)]
Stability – unrequired business demands	5 %	Productivity (3): duplicate service demands	15 (5×3)
Transparency – measurement and reporting	6 %	Decision making (3): missing, unusable, unreliable indicators	18 (6×3)
Transparency – inappropriate communication	2 %	Brand (3): information flooding/lack of information Productivity (3): lack of change management communication	12 [(2×(3+3)]
Adaptability – strategic plan deployment	6 %	Productivity (3): meaningless activities Decision making (3): business and strategic objectives inconsistent	36 [(6×(3+3)]
Adaptability – roles and responsibilities	6 %	Decision making (3): misunderstanding, duplicate work, implicit activities	18 (6×3)
Adaptability – business objectives achievement	18 %	Competition (3), customer satisfaction (2), quality (2): Service delivery failed to achieve business performance targets	126 [18×(3+2+2)]
Reliability – human resources capacity and capabilities	10 %	Productivity (3), quality (2): lack of resources, excessive turnover, skills loss	50 [10×(3+2)]
Reliability – infrastructure maintenance	15 %	Productivity (3): lack of infrastructure maintenance impacting the service delivery productivity and efficiency	45 (15×3)
Reliability – procedures	25 %	Productivity (3), brand (3), customer satisfaction (2), quality (2): missing procedures, unknown or obsolete procedures, procedures not aligned with those of the customers	250 [25×(3+3+2+2)]

5.2.3.4   Root causes and WPs mapping

The service provider should then identify the associated WPs, which are documented in ISO/IEC 30105-2 (see Table 4).

Table 4 — Mapping of root causes to WPs and related ITES-BPO processes

Root causes	Associated WPs documented in ISO/IEC 30105-2	ITES-BPO processes for which WPs are inputs	ITES-BPO processes for which WPs are outputs
Stability – unplanned activities	Process maps and procedures (WP ID 5.10)	TEN5 [Outcome a), j)]	TRN4 [Outcome c)] SDL4 [Outcome a), b), c)]
Stability – unrequired business demands	Contract (WP ID 1.02)	RLS1 [Outcome b), f)] SLN2 [Outcome b), c), f)] TRN1 [Outcome c), g), i)] TRN2 [Outcome a), b), c)] TRN3 [Outcome a), b), d)] TRN4 [Outcome a)] TRN5 [Outcome f), g), h)] TRN6 [Outcome a), i)] SDL2 [Outcome a)] SDL3 [Outcome a), b)] SDL4 [Outcome e)]	RLS1 [Outcome b), f)] SLN2 [Outcome f), g), h)]
Transparency – measurement and reporting	Service performance report (WP ID 6.27)	TEN1 [Outcome a), b)] TRN2 [Outcome c)] SDL1 [Outcome c), d), e)] SDL3 [Outcome c), d), e)] SDL4 [Outcome c), e)]	RLS2 [Outcome e), f), g), h)] TRN2 [Outcome c)] SDL2 [Outcome b), e)] SDL3 [Outcome c), e)] SDL4 [Outcome b), e), f)] TRO1 [Outcome g)] OEN5 [Outcome e) g), h)]
	Communication plan (WP ID 3.14)	TEN6 [Outcome e)] SDL3 [Outcome e)] SDL4 [Outcome f)] TEN3 [Outcome e)] TEN5 [Outcome f), i)] TEN8 [Outcome e)] OEN2 [Outcome f), g)] OEN5 [Outcome e), h)] RLS1 [Outcome c), e)] SDL1 [Outcome e)] SDL2 [Outcome c), d)] SEN2 [Outcome e), f)]	RLS1 [Outcome b)] TRN5 [Outcome g)] SDL1 [Outcome e)] TRO1 [Outcome i), j)] TEN5 [Outcome b), f), i)]

Table 4 *(continued)*

Root causes	Associated WPs documented in ISO/IEC 30105-2	ITES-BPO processes for which WPs are inputs	ITES-BPO processes for which WPs are outputs
Transparency – inappropriate communication	Communication record (WP ID 9.05)		SEN2 [Outcome e)] RLS1 [Outcome c), e] TRN1 [Outcome h), j] SDL1 [Outcome e] SDL2 [Outcome c), d] SDL3 [Outcome e), f] SDL4 [Outcome f] TRO1 [Outcome i] TEN1 [Outcome d] TEN2 [Outcome a), g] TEN3 [Outcome e] TEN6 [Outcome e] TEN7 [Outcome c] TEN8 [Outcome e] OEN1 [Outcome f] OEN2 [Outcome f), g] OEN3 [Outcome a), d]
Adaptability – strategic plan deployment	Department/unit implementation plans (WP ID 3.18)	TEN1 [Outcome a), b]	SEN1 [Outcome c), d]
Adaptability – roles and responsibilities	Supplier roles and responsibilities (WP ID 8.35)	RLS2 [Outcome b), c), d]	RLS2 [Outcome c), d]
Adaptability – business objectives achievement	Service delivery plan (WP ID 3.38)	SDL1 [Outcome b), c), f] SDL2 [Outcome a] SDL3 [Outcome a), b), c] SDL4 [Outcome a), b), c]	TRN5 [Outcome a), b), c), d), e] TRN6 [Outcome b) c), d), e), f), g), h), i] SDL1 [Outcome f]
Reliability - human resources capacity and capabilities	Deployable resources list (WP ID 1.04)	TRO1 [Outcome f). g]	TRN1 [Outcome b), c), d), e), g] SDL1 [Outcome a]
	Resource forecast (WP ID 3.34)	TRN1 [Outcome a), b), d), f] TRN4 [Outcome a]	TRN1 [Outcome a
Reliability – infrastructure maintenance	Non-technology requirements and fulfilment plan (WP ID 3.30)	TRN3 [Outcome a), c]	TRN3 [Outcome a), b]
	Technology requirements and fulfilment plan (WP ID 3.40)	TRN2 [Outcome a), b] OEN5 [Outcome a), b), c), i]	TRN2 [Outcome a]

Table 4 *(continued)*

Root causes	Associated WPs documented in ISO/IEC 30105-2	ITES-BPO processes for which WPs are inputs	ITES-BPO processes for which WPs are outputs
Reliability – procedures	Standard operating procedures (WP ID 5.16)		SDL4 [Outcome a), b), c)]

By resolving the root causes of issues and threats in the ITES-BPO service delivery, the service provider can improve the relevant ITES-BPO service outcomes.

5.2.3.5 Performance criteria determination

Once the service provider has identified the criticality of the root causes of its issues and threats to improve the ITES-BPO service delivery and related business service performance, the service provider can focus on the highest criticalities as shown in Table 3:

— reliability – procedures;

— adaptability – business objectives achievement;

— reliability – human resources capacity and capabilities;

— reliability – infrastructure maintenance.

The service provider performs the gap analysis between critical root causes and characteristics of selected WPs.

The gap analysis output is shown in Table 5.

Table 5 — Example of service performance criteria determination

Critical root causes (criticality)	Associated WPs	Characteristic related to the root cause	Service performance criteria
Reliability – procedures (250)	Standard operating procedures (WP ID 5.16)	Describes review procedure for operational performance	No critical procedures should be obsolete. All processes of critical ITES-BPO process should exist.
Adaptability – business objectives achievement (126)	Service delivery plan (WP ID 3.38)	Identifies service delivery targets as agreed with customer	Business performance should be monitored to identify deviation to service level agreement (SLA).
	Innovation tracker (WP ID 9.20)	Provides status progress and outcomes for the innovations identified	Innovation strategy should be planned to anticipate the customers need.
Reliability - human resources capacity and capabilities (50)	Deployable resources list (WP ID 1.04)	Identifies the training needs for skill set enhancement to meet service delivery requirements	At least 20 % of resources should be certified.
	Resources forecast (WP ID 3.34)	Identifies any deviation between the forecast and the actuals	Resources workload should not exceed 80 %.

Table 5 *(continued)*

Critical root causes (criticality)	Associated WPs	Characteristic related to the root cause	Service performance criteria
Reliability – infrastructure maintenance (45)	Non-technology requirements and fulfilment plan (WP ID 3.30)	Provides a baseline for monitoring for deviations in timelines enabling corrective actions	Preventive infrastructure maintenance of critical ITES-BPO service should be performed monthly (quarterly for non-critical ITES-BPO services).
	Technology requirements and fulfilment plan (WP ID 3.40)	Provides a baseline for monitoring for deviations in timelines enabling corrective actions	Preventive infrastructure maintenance of critical ITES-BPO service should be performed monthly (quarterly for non-critical ITES-BPO services).

5.3 CPI assessment: lifecycle continual performance improvement (LCPI) method

Service providers use their service performance criteria to undertake CPI assessments to assess ITES-BPO service delivery.

The objective of the LCPI method is to assess the ITES-BPO service delivery by using quantitative or qualitative service performance criteria.

The output of a service performance criterion assessment is a quantitative severity level, for instance:

— 0: the performance criterion is fulfilled;

— 1: the performance criterion is not fulfilled and the severity is low;

— 2: the performance criterion is not fulfilled and the severity is medium;

— 3: the performance criterion is not fulfilled and the severity is high.

Service providers should use these service performance criteria severities, and associated root causes' impacts and weights of importance, to calculate a score. This score is, by design, a probability of historical issues and potential threats occurring. To ease the interpretation of this score, service providers can define thresholds:

— below the first threshold, the probability of the occurrence of a historical issue or potential threat is low;

— beyond the second threshold, the probability of the occurrence of a historical issue or potential threat is high.

Service providers can use this score to benchmark the performance of their ITES-BPO service delivery and, therefore, support the prioritization of improvement opportunities, which is a characteristic of the improvement plan (WP ID 3.23).

Also, based on the service performance criteria severities and related root cause impacts, service providers can calculate a score reflecting the maintenance workload of the ITES-BPO service delivery.

Service providers should evaluate the business service performance impact of the unfulfilled service performance criteria and scores. For instance, understanding the cost and the probability of ITES-BPO service disruption enables a simple translation of the scores into business service performance.

Therefore, the LCPI method can benefit ITES-BPO service providers and customers by identifying key improvement opportunities which should be captured in the CPI repository, based on business risk.

Scores and thresholds should be continually reviewed to improve their accuracy and support predictability in delivery of services.

5.4 CPI repository

The service provider should enrich its knowledge repository (WP ID 9.23) with CPI results (such as service performance criteria, root causes criticalities, assessment results, resolution effectiveness and cost) to support the continual performance improvement of its ITES-BPO services.

The adequacy and suitability of the CPI results included in the knowledge repository should be continually reviewed.

6 CPI methodology for ITES-BPO service providers

6.1 General

The CPI methodology supports the successful implementation of the continual improvement process by an ITES-BPO service provider through focusing on ITES-BPO service delivery.

The CPI methodology is comprised of the following components, as shown in Figure 4:

— an assessment method, which assesses ITES-BPO service delivery against service performance criteria (see 5.2);

— a CPI repository, which contains improvement opportunities records, such as service performance criteria, the LCPI results, subject matter expert (SME) recommendations or proven resolutions (see 5.4);

— steps and activities, which align with and expand the continual improvement process requirements (see Clause 7).
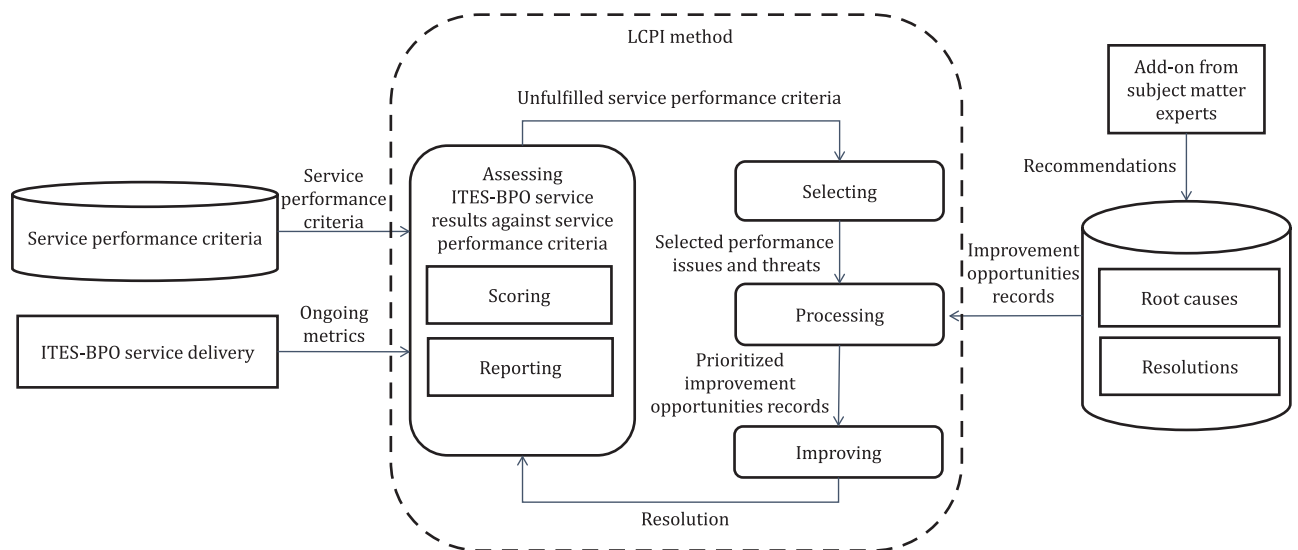

Figure 4 — CPI methodology overview

6.2 Steps and activities

6.2.1 Steps

The CPI steps and activities should take into account the time-to-market and cost constraints associated with business needs.

To optimize the efficiency and effectiveness of the CPI methodology, these steps can be automated, depending on the ITES-BPO organization environment, context and practices.

Table 6 illustrates the steps of implementing the CPI methodology.

Table 6 — CPI methodology steps

Steps	Description
1	Assessing ITES-BPO service delivery
2	Selecting issues and threats
3	Processing improvement opportunities
4	Improving ITES-BPO service delivery

Whilst implementing the CPI methodology, ITES-BPO service providers should communicate progress to appropriate stakeholders.

6.2.2 Step 1: assessing ITES-BPO service delivery

6.2.2.1 Inputs

Inputs are:

— service performance criteria;

— related ongoing metrics of the ITES-BPO service delivery.

6.2.2.2 Outputs

Outputs are:

— audit report (WP ID 6.01), the purpose and scope of which form the service performance criteria assessment of ongoing metrics of ITES-BPO service delivery;

— set of unfulfilled service performance criteria and related severity;

— scores.

6.2.2.3 Activities

The CPI assessment can be triggered in the event of issues, change evaluation or maintenance of an ITES-BPO service delivery.

Service providers can decide to stop the investigations if the disruption is not related to the performance of the ITES-BPO service.

Service providers should progress to step 2 if it is identified that some service performance criteria are unfulfilled. The LCPI scores can support this decision.

6.2.3 Step 2: selecting issues and threats

6.2.3.1 Inputs

The inputs are unfulfilled service performance criteria.

6.2.3.2 Outputs

Outputs are one or several historical issues and potential threats.

6.2.3.3 Activities

Unfulfilled service performance criteria are translated into historical issues and potential threats.

Translating performance criteria into historical issues and potential threats can be complicated. For instance, service performance criteria can be unfulfilled because they are non-applicable. The selection of service performance criteria can depend on the environment, the execution context, or the ITES-BPO service itself.

The organization can decide to stop the investigations:

— if unfulfilled service performance criteria are non-applicable;

— if no historical issue or potential threat is identified.

Service providers should decide to move to step 3 if historical issues and potential threats are selected. In this case, the selected issues and threats will enrich improvement goals (WP ID 8.11).

6.2.4   Step 3: processing issues and threats

6.2.4.1   Inputs

The inputs are one or several performance issues and threats.

6.2.4.2   Outputs

The outputs are prioritized improvement opportunities records.

6.2.4.3   Activities

Service providers should identify root causes.

— New root cause(s) require analysis by subject matter experts. The result of this analysis is a set of recommendations (service performance criteria or resolutions).

— Other root causes and the associated resolutions are already documented in the knowledge repository.

Recommendations and resolutions with proven efficiency provide a set of improvement opportunities for which criticality and cost-effectiveness should be evaluated.

The criticality of improvement opportunities is based on the efficiency and potential implementation difficulties of previous implementation.

When resolving issues and threats, the implementation of all of the improvement opportunity records is not always required. The LCPI scores can be used to extrapolate "what-if scenarios", i.e. simulate the impact of improvement opportunities in order to select the minimum set of improvement opportunities required, from those recorded in the knowledge repository.

The cost-justification should be evaluated by comparing the impact of issues and threats on business and/or customer and/or organizational objectives, on the budget and on the cost of selected recommendations or resolutions.

Improvement opportunities should be prioritized based on the criticality, cost-justification criteria and on the risk mitigation plan (WP ID 3.36).

The service providers can decide to suspend the delivery of improvement opportunities if the root cause(s) of the performance issues cannot be resolved (e.g. environment constraints).

The organization should progress to step 4 if at least one improvement opportunity record is prioritized and scheduled, and if resources and timescales are defined.

6.2.5 Step 4: improving ITES-BPO service delivery

6.2.5.1 Inputs

Prioritized improvement opportunity records.

6.2.5.2 Outputs

Improvement opportunities records are implemented through resolution activities.

6.2.5.3 Outcomes

Improved ITES-BPO services.

6.2.5.4 Activities

Prioritized improvement opportunities can be translated into a solution proposal (WP ID 8.31).

Service providers can accept the solution proposal and decide to implement the identified resolution.

The CPI assessment should be done to control the resolution efficiency, and the LCPI scores can be used as acceptance criteria.

New unfulfilled service performance criteria can be detected, or the LCPI score cannot be accepted where there are:

— inefficient resolutions in this case, a subject matter expert should analyse whether the root cause is related to the environment, the execution context, or the ITES-BPO service itself;

— side effects of other enhancements.

Service providers can decide to stop the ITES-BPO process improvement if the new improvement opportunity record is not cost-justifiable.

Service providers should add the new score, the resolution efficiency and cost into the knowledge repository. The resolution efficiency can also be validated by the service provider's customer.

Service providers should sustain the improved service by continuously conducting CPI assessments during the service delivery execution.

7 Implications of implementing CPI methodology in an ITES-BPO continual improvement process (TEN8)

7.1 General

This clause:

— lists WPs that are essential for the CPI methodology implementation;

— identifies additional inputs and outputs for existing ITES-BPO processes which are required in order to optimize the lifecycle of new or existing WPs that are essential for the CPI methodology;

— identifies additional BPs for the continual improvement process, which drive the successful and continual integration of CPI methodology within ITES-BPO service provider processes.

7.2 New WPs provided by the CPI methodology

The new WPs that support the outcomes of the continual improvement process and other ITES-BPO processes are listed in Table 7.

New WP IDs ("WP ID" column of Table 7) are compliant with the generic WPs classification which is documented in the ISO/IEC 30105-2 (5.00 record, 6.00 report).

Table 7 — New WPs provided by CPI methodology

WP ID	WPs	Characteristics	Process ID [Outcome]
5.18	Lifecycle continual performance improvement	— Assesses the ITES-BPO service delivery with service performance criteria. — Supports the identification of ITES-BPO service constraints. — Reviews the success of approved change of an ITES-BPO service through its lifecycle. — Identifies and analyses improvement opportunities.	SLN1 [Outcome a)] TEN3 [Outcome f)] SDL1 [Outcome c)] TEN8 [Outcome a)] TEN6 [Outcome c)] TEN7 [Outcome b)]
6.33	Root causes review report	— Defines the root causes of issues and threats of ITES-BPO service delivery. — Categorizes the root causes with the STAR categories. — Defines the business impacts and frequency of the root causes. — Provides trending information.	TEN8 [Outcome a), g)] TEN7 [Outcome a)] OEN7 [Outcome b)]
6.44	Service performance criteria review report	— Describes service performance criteria. — Identifies potential improvements to service performance criteria.	TEN8 [Outcome g)]

7.3 Existing WPs essential for the CPI methodology

The CPI methodology also relies on existing WPs. CPI adds and supports process outcomes of the WPs listed in Table 8.

Table 8 — Existing WPs essential for the CPI methodology

WP ID	WPs	Characteristics	Process ID [Outcome]
3.23	Improvement plan	— Defines prioritization of improvements aligned with the business goals. — Describes improvement scope and expected outcomes. — Captures costs and benefits. — Defines schedule, resources and timescales for improvement.	TEN8 [Outcome b), g)]

Table 8 *(continued)*

WP ID	WPs	Characteristics	Process ID [Outcome]
3.36	Risk mitigation plan	— Describes risk identification, risk impact assessment and risk prioritization analysis. — Describes risk mitigation planning. — Tracks implementation and monitors progress against plan.	TEN7 [Outcome e), f)] TEN8 [Outcome a)]
6.01	Audit reports and action plans	— Defines the purpose and scope of the audit, including time period of data audited. — Specifies the standards/methodology for conducting the audit. — Identifies the distribution list for this report. Contents can include: executive summary; audit findings and results; observations captured with risk categorization; specific samples to support the observations; identified threats and vulnerabilities; analysed risks, with measured impact; recommended actions. — Filed and stored in a controlled manner, with version control.	TEN6 [Outcome c), d), e)] TEN8 [Outcome a), b), g)]
8.11	Improvement goals	— Defines the improvement opportunities. — Defines the goals and objective for the improvement identified. — Defines the target for the improvement opportunities.	TEN8 [Outcome a), c), d)]
8.31	Solution proposal	— Details: Background to the problem; Problem statement; Proposed solution(s) for the problem; Method for each solution; Tasks and tools used in each solution; Plan for problem solution; Root cause being addressed; Concluding remarks.	SLN1 [Outcome c), d), e)] TEN8 [Outcome a), d)]
9.23	Knowledge repository	— Holds knowledge assets in a structured approach. — Supports the availability of information in a controlled environment with effective search mechanisms. — Provides information and awareness to support transition in activities. — Supports data retrieval for transition out. — Supports remediation action plans (decision making and implementation).	TRO1 [Outcome e), g)] SDL2 [Outcome d)] TEN8 [Outcome a), b), g)] TEN7 [Outcome c), e), f)]

7.4   Updated BPs and WPs for the CPI methodology

Table 9 shows the ITES-BPO continual improvement process (TEN8), including:

— BPs;

— WPs (inputs and outputs) that are essential for the CPI methodology (see 7.2 and 7.3).

Table 9 — ITES-BPO process – Continual improvement (TEN8)

Process ID	TEN8
Process name	**Continual improvement**
Process purpose	The purpose of the TEN8 process is to manage the identification, analysis, prioritization and implementation of continual improvements.
Process outcomes	As a result of the successful implementation of this process: a) improvement opportunities are identified and analysed; b) continual improvement programmes are planned and implemented; c) specific objectives and goals for the programme are selected based on priority and value added; d) programmes are executed, monitored and reviewed against objectives; e) progress is communicated to stakeholders; f) the customer organization is involved as appropriate; g) the impact of changes, issues and improvements on the continual improvement policy and measures is analysed and reported. As a result of the successful implementation of the CPI methodology: h) the business service performance is improved by meeting service performance criteria; i) the requirements and plans to improve business service performance are identified and monitored.

The BPs listed in Table 10 are applied when implementing the CPI methodology based on this document.

Table 10 — New TEN8 BPs essential for the CPI methodology

Process ID	TEN8
BPs	**BP8: Identify root causes of issues and threats for ITES-BPO service delivery and their business impact:** Improve the business service performance of ITES-BPO services, analyse root causes of past and current issues and threats for the overall ITES-BPO service delivery. [Outcome a)] **BP9: Identify service performance criteria:** Perform a gap analysis between critical root causes and WP characteristics. [Outcome a), g)] **BP10: Assess ITES-BPO service delivery** Assess the ITES-BPO service delivery with quantitative or qualitative service performance criteria to calculate a score. Use the score to avoid the occurrence of issues and threats. [Outcome a), b),g)] **BP11: Update the knowledge repository:** Add CPI results (such as service performance criteria, root causes criticalities, assessment results, resolution effectiveness and costs) to support the continual performance improvement of the ITES-BPO services. [Outcome a), b) ,g)]

The inputs and outputs listed in Table 11 are applied when implementing the CPI methodology based on this document.

Table 11 — New TEN8 WPs inputs and outputs essential for CPI methodology

WPs					
Inputs			Outputs		
WP ID	Name	Outcome	WP ID	Name	Outcome
6.33	Root causes review report	a)	3.36	Risk mitigation plan	a)
6.44	Service performance criteria review report	g)	6.01	Audit reports and action plans	a), b), g)
5.18	Lifecycle continual performance improvement	a)	8.31	Solution proposal	a), d)
			9.23	Knowledge repository	a), b), g)

7.5   Other ITES-BPO processes using CPI WPs as inputs or outputs

This subclause identifies updates for other ITES-BPO process WPs (inputs and outputs) that are essential for the CPI methodology (see 7.2 and 7.3).

Table 12 describes the solution development process (SLN1).

Table 12 — ITES-BPO process – Solution development (SLN1)

Process ID	SLN1
Process name	Solution development
Process purpose	The purpose of the SLN1 process is to develop solutions that meet the identified customer requirements within known constraints.
Process outcomes	As a result of the successful implementation of this process: a) customer requirements and known constraints are defined; b) a project plan is developed for transition and delivery of the required outsourced business processes; c) solutions are identified for the transition and the delivery of services that meet agreed current and future business needs; d) customer success criteria are clearly defined; e) solutions are formally accepted by the customer.

The inputs and outputs listed in Table 13 are applied when implementing the CPI methodology based on this document.

Table 13 — New SLN1 WPs inputs and outputs essential for the CPI methodology

WPs					
Inputs			Outputs		
WP ID	Name	Outcome	WP ID	Name	Outcome
5.18	Lifecycle continual performance improvement	a)			

Table 14 describes the change management process (TEN3).

Table 14 — ITES-BPO process – Change management (TEN3)

Process ID	TEN3
Process name	Change management
Process purpose	The purpose of the TEN3 process is to ensure all changes are assessed, approved, implemented and reviewed in a controlled manner.
Process outcomes	As a result of successful implementation of this process: a) change requests are recorded, classified and prioritized; b) change requests are assessed using defined criteria; c) change requests are approved before changes are developed and deployed; d) an implementation schedule of changes and releases is established; e) an implementation schedule of changes and releases is communicated to relevant stakeholders; f) approved changes are developed, tested, implemented and reviewed for success; g) unsuccessful changes are reversed or remedied; h) the impact of changes, issues and improvements on change management policy and measures is analysed and reported.

The inputs and outputs listed in Table 15 are applied when implementing the CPI methodology based on this document.

Table 15 — New TEN3 WPs inputs and outputs essential for the CPI methodology

WPs					
Inputs			Outputs		
WP ID	Name	Outcome	WP ID	Name	Outcome
5.18	Lifecycle continual performance improvement	f)			

Table 16 describes the service delivery execution process (SDL1).

Table 16 — ITES-BPO process – Service delivery execution (SDL1)

Process ID	SDL1
Process name	Service delivery execution
Process purpose	The purpose of the SDL1 process is to manage, operate and control the ongoing service delivery to achieve the desired performance levels.

Table 16 *(continued)*

Process outcomes	As a result of successful implementation of this process: a) roles and responsibilities for delivering services are maintained and assigned; b) daily operations are controlled; c) service delivery is monitored against the operational performance targets; d) governance framework is implemented; e) performance of daily operations communicated to relevant stakeholders; f) service delivery plans are reviewed and maintained in line with service changes and customer feedback.

The inputs and outputs listed in Table 17 are applied when implementing the CPI methodology based on this document.

Table 17 — New SDL1 WPs inputs and outputs essential for the CPI methodology

WPs					
Inputs			**Outputs**		
WP ID	**Name**	**Outcome**	**WP ID**	**Name**	**Outcome**
5.18	Lifecycle continual performance improvement	c)			

Table 18 describes the service delivery reporting process (SDL2).

Table 18 — ITES-BPO process – Service delivery reporting (SDL2)

Process ID	SDL2
Process name	**Service delivery reporting**
Process purpose	The purpose of the SDL2 process is to produce timely and accurate service reports to support effective communication and decision making.
Process outcomes	As a result of the successful implementation of this process: a) the service delivery reporting needs are identified; b) service delivery reports are produced according to the service report requirements; c) service delivery reports are communicated to relevant stakeholders; d) improvement actions are identified and reported; e) service delivery reports are reviewed and maintained in line with service changes and customer feedback.

The inputs and outputs listed in Table 19 are applied when implementing the CPI methodology based on this document.

Table 19 — New SDL2 WPs inputs and outputs essential for the CPI methodology

WPs					
Inputs			**Outputs**		
WP ID	**Name**	**Outcome**	**WP ID**	**Name**	**Outcome**
9.23	Knowledge repository	d)			

Table 20 describes the audit management process (TEN6).

Table 20 — ITES-BPO process – Audit management (TEN6)

Process ID	TEN6
Process name	Audit management
Process purpose	The purpose of the TEN6 process is to independently determine the conformity of selected services, products and processes to the requirements, plans and agreements, as appropriate.
Process outcomes	As a result of successful implementation of this process: a) the scope and purpose of each audit is defined; b) the objectivity and impartiality of the conduct of audits and selection of auditors are assured; c) conformity of selected services, products and processes with requirements, plans and agreements is determined; d) non-conformities are recorded; e) non-conformities are communicated to those responsible for corrective action and resolution; f) corrective actions for non-conformities are verified.

The inputs and outputs listed in Table 21 are applied when implementing the CPI methodology based on this document.

Table 21 — New TEN6 WPs inputs and outputs essential for the CPI methodology

WPs					
Inputs			**Outputs**		
WP ID	**Name**	**Outcome**	**WP ID**	**Name**	**Outcome**
5.18	Lifecycle continual performance improvement	c)			

Table 22 describes the risk management process (TEN7).

Table 22 — ITES-BPO process – Risk management (TEN7)

Process ID	TEN7
Process name	Risk management
Process purpose	The purpose of the TEN7 process is to identify, analyse, evaluate, mitigate and monitor the risks.
Process outcomes	As a result of successful implementation of this process: a) risks are identified; b) identified risks are categorized, assessed and the priority in which to apply resources to mitigate these risks is determined; c) risks and their proposed mitigation plans are communicated to relevant stakeholders; d) assessed risks are monitored; e) appropriate mitigation measures are taken to correct or avoid unacceptable assessed risks; f) the impact of changes, issues and improvements on risk policy and measures is analysed and reported.

The inputs and outputs listed in Table 23 are applied when implementing the CPI methodology based on this document.

Table 23 — New TEN7 WPs inputs and outputs essential for the CPI methodology

WPs					
Inputs			Outputs		
WP ID	Name	Outcome	WP ID	Name	Outcome
5.18	Lifecycle continual performance improvement	b)	9.23	Knowledge repository	c)
6.33	Root causes review report	a)			
9.23	Knowledge repository	e), f)			

Table 24 describes the issue management process (OEN7):

Table 24 — ITES-BPO process – Issue management (OEN7)

Process ID	**OEN7**
Process name	**Issue management**
Process purpose	The purpose of the OEN7 process is to ensure that issues can be resolved in a timely manner at the tactical, operational or strategic levels.
Process outcomes	As a result of successful implementation of this process: a) issues are logged, classified, prioritized, escalated and communicated based on their severity; b) issues are reviewed by the relevant stakeholders; c) unresolved issues are escalated according to agreed criteria; d) resolution of issues and their closure are agreed between stakeholders; e) knowledge management systems are updated with issue and resolution records to prevent recurrence; f) the impact of changes, issues and improvements on issue management policy and measures is analysed and reported.

The inputs and outputs listed in Table 25 are applied when implementing the CPI methodology based on this document.

Table 25 — New OEN7 WPs inputs and outputs essential for the CPI methodology

WPs					
Inputs			Outputs		
WP ID	Name	Outcome	WP ID	Name	Outcome
			6.33	Root causes review report	b)

Bibliography

[1]   ISO/IEC TS 25011:2017, *Information technology — Systems and software Quality Requirements and Evaluation (SQuaRE) — Service quality models*

[2]   ISO/IEC 27036-3:2013, *Information technology — Security techniques — Information security for supplier relationships — Part 3: Guidelines for information and communication technology supply chain security*

[3]   ISO/IEC 30105-1, *Information technology — IT Enabled Services-Business Process Outsourcing (ITES-BPO) lifecycle processes — Part 1: Process reference model (PRM)*

[4]   ISO/IEC 30105-2, *Information technology — IT Enabled Services-Business Process Outsourcing (ITES-BPO) lifecycle processes — Part 2: Process assessment model (PAM)*

[5]   ISO/IEC 30105-4, *Information technology — IT Enabled Services-Business Process Outsourcing (ITES-BPO) lifecycle processes — Part 4: Key concepts*

ICS 35.020

Price based on 25 pages