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Final Report for Change, Monitoring and Evaluation

ItSMF Finland Project

Metropolia University of Applied Sciences

Bachelor of Engineering

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Abstract

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The objective of this project was to describe the current monitoring and evaluation practices used during transitions to production in multi-vendor environments. The project aimed to understand how organizations monitor implemented changes and evaluate their outcomes in complex service ecosystems.

The project is based on ITIL 4 and IT Service Management (ITSM). A qualitative research approach was applied, combining a literature review with interviews conducted with professionals from different organizations. The interview data was analyzed using qualitative content analysis.

The results indicate that monitoring and evaluation practices exist but are inconsistent and often reactive, with deeper evaluation mainly triggered by incidents. Success is defined through value delivery, quality, efficiency and stakeholder satisfaction, with emphasis on business value. Measurement focuses on operational metrics such as incidents and change success rates, while value-based evaluation remains limited. Multi-vendor environments increase complexity due to shared responsibilities and unclear roles, highlighting challenges in coordination and consistency.

The outcome of the project is a structured description of the current state of change monitoring and evaluation practices in multi-vendor production transitions.

Keywords: Change management, monitoring and evaluation, ITIL 4, SIAM, multi-vendor environment

Use of Artificial Intelligence

We have used OpenAI's ChatGPT (version 5.4) in developing the research design, as well as in structuring and outlining the study. We have also used the same tool to support language refinement and the formatting of references and in the planning of the interview question set and the overall interview structure. As the authors of this study, we are responsible for all content included in the work.

Appendices

1 Introduction

This project was carried out by a team of five industrial engineering and management students from Metropolia UAS for itSMF Finland, a non-profit organization whose goal is to share information, promote cooperation and conduct research in the area of service management and service leadership.

1.1 Business Context

The client in this project was SIAM SIG (Service Integration and Management Special Interest Group), a voluntary working group operating under itSMF Finland, focusing on the development and sharing of service integration and management (SIAM) practices. The group wants to introduce an ITIL v4 way of managing and monitoring changes.

1.2 Business Challenge, Objective and Outcome

The business challenge of this project centers on understanding how monitoring and evaluation are currently managed during transitions to production in multi-vendor environments. These environments typically involve multiple service providers, interconnected systems and diverse stakeholder groups, which significantly increase operational complexity. As a result, coordination becomes more demanding, responsibilities may be distributed across organizational boundaries and the risk of disruptions during deployment phases is heightened.

The objective of this project was to systematically identify and analyse the existing monitoring and evaluation practices applied during production transitions in such multi-vendor settings. This includes examining how these processes are structured and governed, which performance metrics and indicators are utilized and how effectiveness is measured and reported across different stakeholders and systems.

The expected outcome was a comprehensive current state analysis that provides a structured and transparent understanding of how production transitions are evaluated in practice. The findings will highlight existing strengths, reveal potential gaps or inconsistencies and identify opportunities for improvement. Ultimately, the results aim to support the future development and alignment of monitoring and evaluation practices in multi-vendor production environments, contributing to improved reliability, accountability and overall operational performance.

1.3 Scope and Outline

This project defines a focused scope to ensure clarity, feasibility and relevance within the timeframe of the academic course. The primary scope of the project was limited to examining current monitoring and evaluation practices applied during transitions to production in multi-vendor environments. The analysis concentrates specifically on how these practices are structured, measured and assessed in practice.

The project does not address the technical implementation of monitoring tools, system development activities, infrastructure modifications or broader operational management processes. Instead, the emphasis remains on governance structures, performance metrics, evaluation methods and stakeholder coordination during production transitions.

Several limitations influence the scope and applicability of the findings. First, the analysis is constrained by the duration and structure of the academic course, which limits the extent of data collection and the depth of empirical investigation. Second, the project is conducted by a student team, and therefore available time, domain expertise and resources may affect the breadth and granularity of the analysis. Finally, practices may vary significantly across vendors, industries and organizational contexts. These contextual differences may limit the generalizability of the results, and they are carefully considered when interpreting conclusions and formulating recommendations.

The report is structured to first present the contextual background and theoretical foundations, followed by an analysis of current practices, and concluding with identified strengths, gaps, and potential areas for future development.

2 Methods

This chapter presents the methodological approach of the project and explains how the research was designed and conducted. It describes the research approach, research design, data collection and analysis methods, and the project schedule. The purpose of this section is to ensure transparency and demonstrate how the findings were systematically developed.

2.1 Research Approach

This project followed a qualitative research approach focusing on monitoring and evaluation practices in multi-vendor production transitions. The aim was to identify and analyse good practices used in different environments.

Before the interviews, a literature review was conducted to build a theoretical understanding of the topic and to support the planning of the empirical phase. This helped ensure that the interviews addressed relevant themes and that the project was grounded in existing knowledge.

2.2 Research Design

The research was designed to combine a literature-based foundation with interview-based empirical data. First, the literature review was used to clarify the key concepts and themes related to monitoring and evaluation in multi-vendor production transitions, resulting in a theoretical framework. Based on this foundation, a set of interview questions was prepared. The overall research process is illustrated in Figure 1.

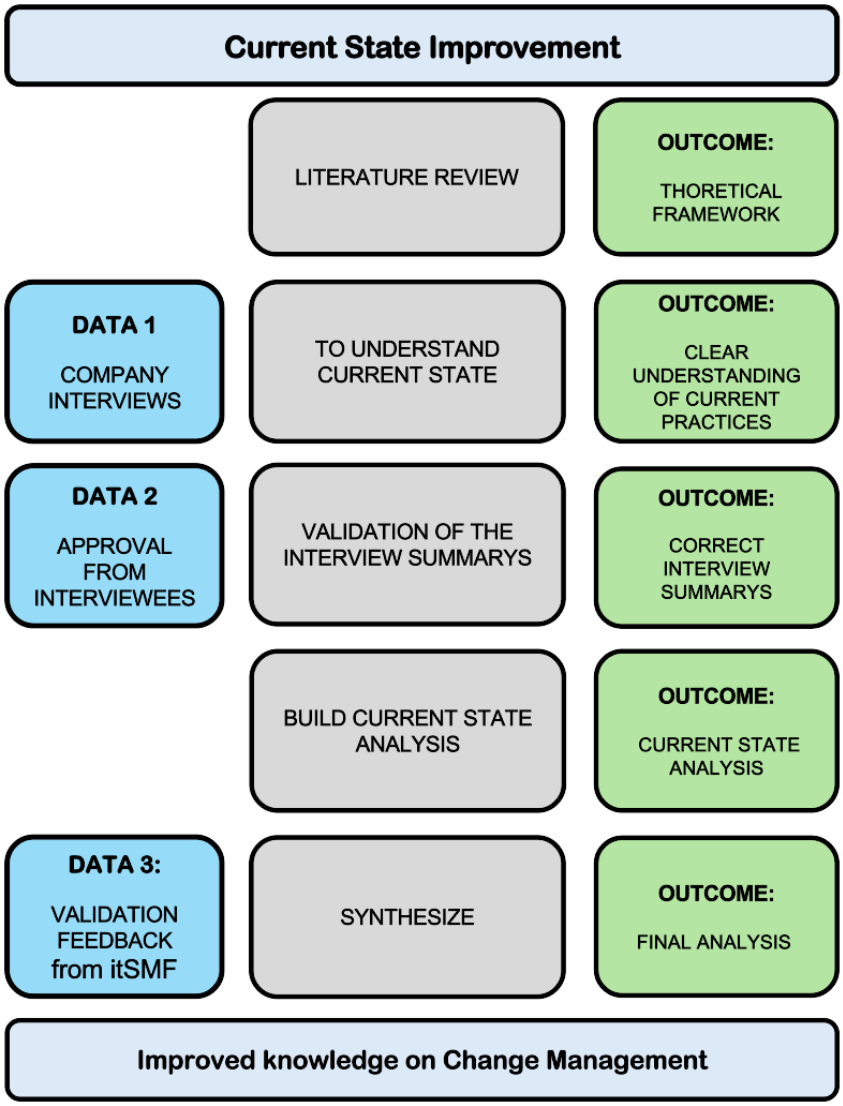

Figure 1. The overall research process.

The empirical part of the study consisted of five interviews conducted in relevant working environments. The interviews aimed to build an understanding of current practices. Further details on data processing are presented in Chapter 4.

2.3 Data Collection and Analysis

Data was collected through five interviews with participants from relevant working environments. The same set of questions was used with all interviewees to ensure a consistent structure and support comparability between responses. The

interview questions covered key themes such as roles and responsibilities, monitoring and evaluation processes, success criteria, metrics, and the impact of multi-vendor environments.

The collected data was analysed qualitatively by comparing the responses and identifying recurring themes, similarities, and differences related to monitoring and evaluation practices. The analysis focused on recognizing practical approaches that could be considered good practices in multi-vendor production transitions.

As practices varied between vendors and operating environments, the findings were interpreted with consideration of context-specific differences. These were also taken into account when drawing conclusions. A more detailed description of the data processing and analysis procedure is presented in Chapter 4.

2.4 Project Schedule

The project was carried out according to a structured schedule covering weeks 6-18. The work progressed in clear phases from project planning and client feedback to research preparation, interviews, analysis and final reporting.

The project plan was prepared and delivered in weeks 6-7 and the client did not request any changes to it. The literature review and interview preparation were completed in weeks 9-12, including drafting, approval, a pilot interview and finalizing the interview questions. The interviews were conducted in weeks 12-13 and the responses were analysed in weeks 13-14, followed by client approval of the analysis in week 15.

Final report preparation progressed alongside the project and the final presentation was prepared in week 16. The outcomes were presented to the client and feedback was collected in weeks 17-18. In addition, a webinar was agreed upon with the client during the final phase of the project and held in week

18. The Gantt chart below (Table 1) presents the timeline and sequencing of the main project activities.

GANTT-chart / WEEK	6	7	8	9	10	11	12	13	14	15	16	17	18
Project initiation: starting the project plan													
Completion of the project plan and delivery to the client													
Possible revisions to the project plan based on the client's requirements													
Literature review													
Drafting preliminary interview questions and contacting interviewees													
Approval of the interview questions by the client													
Pilot interview													
Finalizing the interview													

questions based on the pilot interview													
Interviews													
Analysis of interview responses													
Approval of the analyses by the client													
Final report preparation													
Final presentation preparation													
Presentation of the final outcome to the client													
Webinar													
Client feedback													
Project closure													

Table 1. The Gantt Chart.

The Gantt chart (Table 1) demonstrates how the project phases were interlinked and how timing was allocated to ensure both efficiency and quality. Critical stages such as interview preparation and data analysis were given enough time, which contributed to the reliability of the results. The inclusion of the client feedback points also supported alignment with stakeholder expectations throughout the project.

3 Literature Review

This literature review focuses on the main theoretical concepts related to ITIL 4, ITSM and SIAM. ITIL (Information Technology Infrastructure Library) is a widely used framework that provides best practices for IT service management, while ITSM (Information Technology Service Management) refers to the processes and activities involved in designing, delivering and improving IT services. It also discusses change enablement, post-implementation review, post-deployment monitoring, performance measurement and continual improvement.

These topics are closely connected to how service changes are managed, evaluated and improved over time. Together, they provide a useful foundation for understanding how organizations can carry out changes more successfully, reduce risks and improve the overall quality and value of their IT services.

3.1 IT Service Management - Theoretical Foundation

The theoretical foundation comprises of ITIL 4, ITSM and SIAM. They all create the framework for managing IT services, changes in them and the monitoring and evaluation of those changes.

3.1.1 Service Value System (SVS)

In ITIL 4, the key concepts of the framework are ITIL service value system (SVS) and the four dimensions model. SVS shows how different components and activities of the organization function together to enable value creation through IT-enabled services. These can be combined in a dynamic way, with coordination and integration to keep consistency within the organization. SVS facilitates this and provides a value-focused way for the organization. (Limited 2019, p. 18)

The core parts of the SVS are service value chain, practices, governance, guiding principles, and continual improvement, as shown in Figure 2. (Limited 2019, p. 18)

Figure 2. SVS structure. (Cybiant 2020)

The core of the SVS structure, service value chain, is another key concept of ITIL 4. It will be opened and explained in the next section.

3.1.2 Service Value Chain

The center of the service value system is the service value chain. It's made of six activities that function together to receive incoming opportunities and demand and create value. The service provider uses these activities to create and manage products and services that enable value co-creation with service consumers. (Cybiant 2020)

The Service Value Chain (SVC) is a flexible operating model for the creation, delivery, and continual improvement of services. The SVC defines six key activities: Plan, Improve, Engage, Design and Transition, Obtain/Build, and Deliver and Support. These activities can be combined in multiple ways, allowing an organization to create several variants of value streams. The flexibility of the SVC allows organizations to effectively and efficiently react to changing demands from stakeholders (Cybiant 2020). The SVC structure and its six key activities are visually presented in Figure 3.

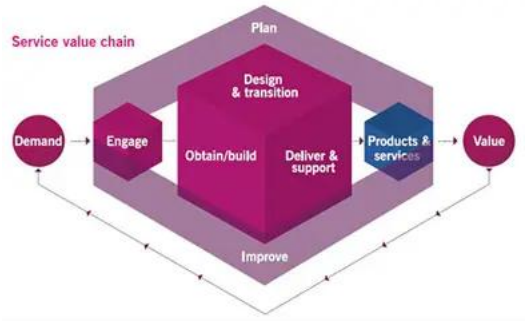

Figure 3. Service value chain structure. (Cybiant 2020)

ITIL practices enhance the flexibility of the service value chain. Each practice supports multiple activities in the SVC and provides comprehensive and versatile tools for ITSM users. (Limited 2019, p. 19)

ITIL guiding principles focus on value, start where you are, progress iteratively with feedback, collaborate and promote visibility, think and work holistically, keep it simple and practical and optimize and automate. These are meant to help IT professionals adopt and adapt the framework's guidance to their own specific needs and circumstances. (Cybiant 2020)

ITIL governance enables organizational alignment of operations and strategy set by the governing body. (Limited 2019, p. 19)

Continual improvement in ITIL context provides a simple and practical improvement model for organizations to maintain resilience and agility in a changing environment. (Limited 2019, p. 19)

3.1.3 Four Dimensions

ITSM in the ITIL context is most visible in the four dimensions of service management, key concepts of service management, and ITIL management practices. The four dimensions of service management are organizations and people, information and technology, partners and suppliers, and value streams and processes. A holistic approach to ITSM is vital in ITIL 4, as these dimensions are crucial for facilitating value for customers and other stakeholders. An

appropriate level of focus is required for each dimension to ensure balanced and effective value creation (Cybiant, 2020).

The structure and four dimensions of service management are visually presented in Figure 4.

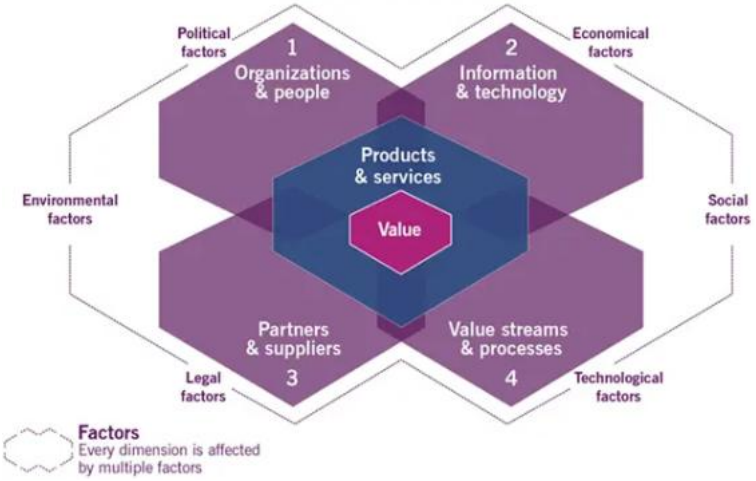

Figure 4. The structure of the four dimensions of service management. (Cybiant 2020)

The key concepts of service management according to ITIL 4 are the nature of value and value cocreation, organizations, service providers, service consumers and other stakeholders, products and services, service relationships and value: outcomes, costs and risks. These concepts apply to all organizations and services, regardless of their differences and technologies in use. (Limited 2019, p. 22)

3.1.4 ITIL Management Practices

ITIL management practices are compiled within the service management system, which includes 14 general management practices, 17 service management practices, and three technical management practices. These are all dependent on the four dimensions of service management.

General management practices were taken for service management from general business management domains. Service management practices were formed in service management and ITSM industries. The technical management practices were adopted from technology management domains for service management purposes. (Limited 2019, p. 86)

3.1.5 SIAM

The SIAM key concepts are SIAM layers, SIAM structures, drivers for SIAM, SIAM terminology and SIAM roadmap. (Scopism 2019, p. 15)

The three SIAM layers form the SIAM ecosystem: the customer organization, the service integrator, and the service providers. The focus, activities, and responsibilities for each layer are different, as shown in Figure 5 (Scopism, 2019, p. 15).

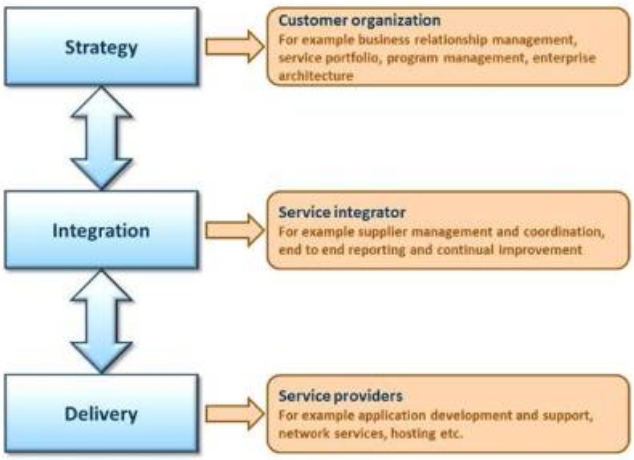

Figure 5. The three layers of SIAM. (Scopism 2019, p. 15)

There are four SIAM structures that are differentiated from each other by the sourcing and configuration of the service integrator layer. They are externally sourced and internally sourced service integrator, hybrid service integrator and lead supplier as service integrator. The factors influencing the choice of structure are many, for example business requirements, customer budget and timescales. (Scopism 2019, p. 17)

SIAM terminology contains important information about the elements that need to be considered when adopting a SIAM model. These are SIAM practices, functions, roles, structural elements, and models. (Scopism 2019, pp. 22-23)

The SIAM roadmap describes the high-level stages and activities required for the creation and transformation into a SIAM model. It consists of four stages that are discovery and strategy, plan and build, implement and run and improve. (Scopism 2019, pp. 24–25)

3.2 Change Enablement

Change Enablement (CE) is a core ITIL 4 management practice designed to balance the speed of change with the protection of services and users. Its goal is to maximize value for both the organization and its customers. CE is distinct from traditional organizational change management: CE focuses on technical and service-related changes, while organizational change management addresses human factors such as adoption, capability, and culture.

According to ITIL 4, CE involves assessing, authorizing, and scheduling changes, as well as assigning appropriate change authorities based on risk and impact. (Limited 2019, pp. 119-121) This structured approach aims to balance the benefits of change with the need to protect users and customers from negative impacts.

3.2.1 Change Enablement Practice

The CE practice is integrated across the ITIL Service Value System (SVS) and contributes to all value chain activities, including planning, design, transition, delivery, and support. Each change follows a clear process: identification, risk assessment, approval, implementation, and post-change review. (Danby, 2025) To illustrate how change enablement supports different service value chain activities, Figure 6 presents a heat map showing the relative contribution of CE across planning, design, transition, delivery, and support activities.

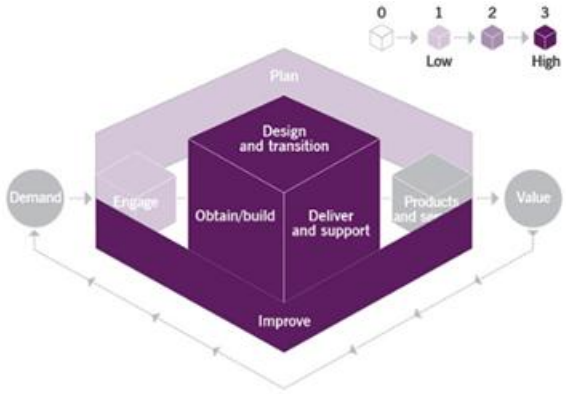

Figure 6. Heat map of the contribution of change enablement to value chain activities. (Limited 2019, p. 121)

Organizations increasingly adopt decentralized approval models for standard changes, which may be pre-authorized, peer-reviewed, or automated through CI/CD pipelines to accelerate delivery while maintaining appropriate control. (Danby, 2025) Change authority depends on the type and risk of the change and may reside with delegated teams, business stakeholders, or senior management.

Effective communication and stakeholder engagement are essential for ensuring organizational readiness, adoption, and minimal resistance to change. (Dempsey et al. 2021) Without these social enablers, even well-structured technical changes may fail.

3.2.2 Change Success vs. Failed Changes

The success of a change initiative depends on careful risk management, stakeholder involvement, and visible leadership support. Four critical success factors have been identified: clear communication, a consistent vision, early and active participation, and top management commitment. (Dempsey et al. 2021)

Failure often results from resistance to change, over-standardized approaches that ignore organizational context, and perceiving change as temporary rather than ongoing. Resistance can be cognitive, emotional, or behavioural, typically

arising from poor communication, misaligned incentives, or unrealistic timelines. (Dempsey et al. 2021)

Although CE focuses on technical changes, their successful implementation depends heavily on human factors such as communication, stakeholder engagement, and leadership sponsorship. (Limited 2019, pp. 119-121)

3.2.3 Risk, Impact, and Change Categorization

Risk management is central to CE, as each change can introduce potential threats or opportunities and must therefore be assessed proportionally. Risks are identified, evaluated, and managed according to their probability and potential impact, enabling organizations to allocate resources effectively and prioritize appropriately. (Limited 2019, pp. 102-105) Risk management contributes to multiple value chain activities, and understanding its relative impact helps organizations prioritize resources and assess change effectively, as illustrated in the heat map in Figure 7.

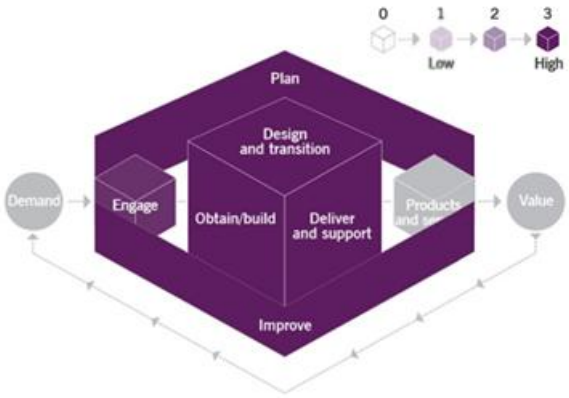

Figure 7. Heat map of the contribution of risk management to value chain activities. (Limited 2019, p. 105)

Impact assessment complements risk management by evaluating potential consequences for services, customers, and internal stakeholders. It ensures that benefits outweigh potential harms and supports informed decision-making. (Mann 2026)

ITIL 4 defines three primary categories of change: standard, normal, and emergency, each with distinct levels of risk, authorization requirements, and procedural expectations. Standard changes are pre-authorized, low-risk, and repeatable, often automated or executed using predefined runbooks. Normal changes require risk-based assessment and scheduling, while emergency changes are urgent and require expedited approval, typically followed by a post-implementation review. (Limited 2019, pp. 102-105)

By integrating risk and impact considerations into change planning, organizations reduce negative outcomes while maintaining agility. (Mann 2026)

3.3 Post-Implementation Review

Post-implementation review is an evaluation carried out after implementation to assess how well an implemented solution has worked in practice. Ewert and Wagenhofer describe PIR as the final ex post review stage, where the focus is on whether the implemented solution met its objective, worked as expected, caused implementation issues and should be improved further. This makes PIR important because it shifts attention from implementation itself to the actual effects of the change. (Ewert and Wagenhofer 2012)

Atlassian similarly defines PIR as a structured evaluation that compares actual results with original goals, measures impact and documents useful insights for future work. This highlights that PIR is not only about reviewing what happened, but also about using experience to improve future work. (Atlassian n.d.)

ITIL 4 links PIR directly to release management by stating that a release post-implementation review enables learning and improvement and helps to ensure that customers are satisfied. This supports the idea that a release should be reviewed after deployment to understand how well it performed in actual use. (Limited 2019, pp. 133-134)

Section 3.3 examines PIR through three perspectives: the purpose of PIR, the evaluation of outcomes after implementation and the role of lessons learned and root cause analysis in future improvement.

3.3.1 Purpose of PIR

The purpose of PIR is to evaluate the effects of an implemented solution after it has become effective. Ewert and Wagenhofer argue that PIR should not focus only on practical implementation issues, but also on whether the implemented solution achieved its broader objective. This gives PIR a wider evaluative role than simply confirming that implementation has been completed. (Ewert and Wagenhofer 2012)

Atlassian presents PIR as a practical way to understand what worked well, what did not work as expected and what should be improved in future work. This makes PIR useful both for reviewing a completed implementation and for building knowledge that supports future projects and changes. (Atlassian n.d.)

ITIL 4 supports this improvement-oriented view by linking PIR to release management. The framework notes that release post-implementation review enables learning and improvement and supports customer satisfaction, which suggests that PIR is intended to review the success and impact of a release after deployment. (Limited 2019, pp. 132-134)

3.3.2 Evaluation of Outcomes after Implementation

Atlassian describes PIR as a structured process that includes defining objectives, gathering data, analysing findings, documenting lessons learned and applying insights in future work. This shows that PIR should be systematic and based on evidence from the completed implementation. (Atlassian n.d.)

Ewert and Wagenhofer also emphasize that PIR should rely on as much relevant evidence as possible, because its role is to evaluate the effects of decisions that

have already been implemented. This underlines the importance of systematic assessment instead of relying only on informal opinion. (Ewert and Wagenhofer 2012)

In ITIL 4, the evaluation of outcomes after implementation is supported by monitoring and event management. The framework states that this practice is used to systematically observe services and service components, record and report selected changes of state and respond to events that may indicate faults or incidents. In PIR, this makes monitoring important because it provides information about how a change performs in the live environment. (Limited 2019, pp. 127-130)

ITIL 4 also supports evaluation through measurement and reporting, which aims to support decision-making and continual improvement through the collection and valid assessment of relevant data. In a PIR context, this means that actual outcomes should be assessed against expected objectives using relevant evidence. (Limited 2019, pp. 94-96)

3.3.3 Lessons Learned, Root Cause Analysis and Improvement

Atlassian emphasizes that PIR should result in documented lessons learned that are shared and applied in future work. This means that PIR creates value only when its findings are used to improve later projects. (Atlassian n.d.)

ITIL 4 supports this through knowledge management, whose purpose is to maintain and improve the use of information and knowledge across the organization. In PIR, this means that review findings should be turned into useful knowledge for future changes and service work. (Limited 2019, pp. 93-94)

ITIL 4 also connects PIR to continual improvement by stating that improvement opportunities should be captured, documented, assessed, prioritized and acted upon. This shows that PIR should lead to concrete follow-up actions rather than remain only a record of observations. (Limited 2019, pp. 89-90)

Root cause analysis is also an important part of PIR. Atlassian frames PIR around the questions of what happened, why it happened and what it means for future work, which supports analysing the reasons behind problems or unexpected outcomes. (Atlassian n.d.)

In ITIL 4, this is linked to problem management, which aims to identify actual and potential causes of incidents and manage workarounds and known errors. ITIL 4 also states that problem management participates in the post-implementation review and can identify improvement opportunities for continual improvement. This creates a clear connection between PIR, root cause analysis and future service improvement. (Limited 2019, pp. 130-132)

3.4 Post-Deployment Monitoring and Service Transition

Service Transition is a key ITIL 4 practice aimed at ensuring that new or changed services are introduced into the production environment in a controlled and predictable manner. This phase encompasses change planning, deployment, early life support (ELS), and post-deployment stabilization monitoring.

3.4.1 Key Metrics in Deployment and Early Life Support (ELS)

During the deployment phase, the service or change is introduced into the production environment. A crucial aspect of this phase is monitoring the change success rate and tracking any emergency changes, rollbacks, or rework. Evaluating deployment outcomes allows organizations to identify process strengths and highlight areas for improvement. Effective deployment monitoring supports controlled releases and reduces the risk of service disruption in complex environments. (Limited 2019, pp. 226–228)

Early Life Support (ELS) refers to the period immediately following deployment, during which the new service or change is closely monitored. The primary objective is to quickly detect and resolve change-related incidents before they significantly impact users or overall service quality. Common metrics for this phase include the number of incidents during ELS, the mean time to restore

service (MTTR), and user-reported issues. Metrics such as MTTR are widely used in reliability engineering to assess service recovery performance and operational resilience. (Limited 2019, pp. 228–229)

3.4.2 Key Metrics in Incident Analysis and Stabilization

Analysing change-related incidents provides valuable insights into the effectiveness of the change process. Examining incident trends helps identify high-risk change types, recurring problems, and areas that may require adjustments to processes, additional testing, or staff training. (Limited 2019, pp. 228–230)

The stabilization period follows ELS and represents the time during which the service reaches its expected performance and operational baseline. Its length depends on the complexity of the service and the scope of the change. Key metrics monitored during stabilization include service availability, emergency changes, and incident trends. Careful monitoring during this phase supports continuous improvement, reduces failed changes, and ensures that new services deliver their intended business value efficiently and reliably. (Limited 2019, pp. 230–232)

3.5 Performance Measurement for Changes

Measuring the performance of changes is a fundamental component of ITIL 4's Change Enablement practice. Organizations implement changes to improve services, introduce new features, or maintain compliance, but each change introduces a level of risk to service stability. Systematic performance measurement allows organizations to evaluate how efficiently changes are implemented, how they affect service quality, and how well the change management process supports business objectives. Key performance indicators (KPIs) provide a quantitative basis for assessing change effectiveness and identifying areas for continuous improvement. (Limited 2019, pp. 221-223)

3.5.1 Essential Measures of Change Performance

The change success rate is one of the most widely used KPIs in change performance management. It measures the proportion of changes that are implemented without causing incidents, emergency fixes, or rollbacks. A high change success rate typically reflects effective planning, thorough risk assessment, adequate testing, and well-structured approval processes. It also indicates organizational maturity in managing the change lifecycle and coordinating responsibilities across teams. Conversely, a low success rate may signal insufficient testing, incomplete impact analysis, or unclear communication during deployment. Monitoring this KPI over time enables organizations to identify performance trends and implement targeted process improvements, such as strengthening Change Advisory Board (CAB) reviews or introducing automated testing for high-risk changes. (Limited 2019, pp. 220-223)

Monitoring change-related incidents is another essential measure of change performance. Incidents occurring after implementation may reveal weaknesses in deployment planning, testing practices, or dependency management (Limited 2019, pp. 228-230). Organizations often analyse incident data by type, severity, frequency, and root cause to identify recurring issues or high-risk change categories. For example, a noticeable increase in incidents following standard changes may indicate process control gaps, whereas incidents related to emergency changes may reflect reactive or insufficiently assessed interventions. Systematic trend analysis supports evidence-based decision-making and helps prioritize improvements in change planning, resource allocation, and communication practices.

Rework and rollback rates quantify the number of changes that must be corrected or reverted due to failure, misconfiguration, or unforeseen impact. These KPIs provide direct insight into the quality of change implementation and the maturity of the change management framework. (Limited 2019, pp. 221-223) High rollback rates can disrupt service delivery, increase operational costs, and undermine stakeholder confidence. In reliability engineering literature, reducing rework and

failed changes is closely associated with improved system stability and operational resilience. By analysing patterns in rework and rollback events, organizations can implement preventive measures such as enhanced pre-deployment validation, more rigorous approval mechanisms, improved risk categorization, or automated testing and verification processes. (Limited 2019, pp. 221-223)

3.5.2 Additional KPIs

Beyond change success rate, incident trends, and rollback metrics, several additional KPIs provide a broader and more comprehensive view of change performance. These indicators help organizations assess process maturity, governance effectiveness, and operational stability from multiple perspectives. (Limited 2019, pp. 221-223, 67-69)

The emergency change rate measures the proportion of changes that are classified as urgent or unplanned. A high emergency change rate may indicate reactive operational practices, insufficient release planning, or weaknesses in risk assessment processes. (Limited 2019, pp. 67-69, 221-223)

Unauthorized changes refer to changes implemented without proper review, documentation, or formal approval. These changes represent both compliance risks and potential sources of service disruption. Unauthorized modifications can bypass risk assessment and testing procedures, increasing the likelihood of incidents and service outages. Effective governance frameworks emphasize strict authorization controls to ensure accountability, traceability, and alignment with organizational policies. (Limited 2019, pp. 67-69, 221-223)

Average time to implement changes measures the efficiency of the end-to-end change process, including planning, approval, deployment, and post-deployment validation. This KPI provides insight into process agility and responsiveness while balancing risk control requirements. While shorter implementation times may indicate operational efficiency, excessively accelerated processes can increase

the risk of insufficient testing or oversight. Therefore, organizations must balance speed with quality assurance to maintain both efficiency and reliability. (Limited 2019, pp. 221–223)

3.6 Continual Improvement

This section examines continual improvement, with a focus on post-change learning. It discusses how organizations evaluate implemented changes, analyse performance outcomes, and identify lessons learned after service transitions. The purpose is to ensure that changes do not end at deployment but instead lead to continuous development and improved service management practices.

3.6.1 From Evaluation to Organizational Learning

Post-change evaluation and performance measurement provide essential information about the outcomes of implemented changes. However, within the ITIL 4 framework, continual improvement is described as an organization-wide activity that applies across all levels and areas of service management. (Limited 2019, pp. 76-77) This means that improvement does not end with reviewing results: rather, it requires that the insights gained are actively considered in future decisions and practices.

According to ITIL 4, continual improvement is supported by a structured model that guides organizations in managing improvement initiatives in a consistent and goal-oriented manner. The model emphasizes that improvement efforts should be linked to organizational objectives and carried out iteratively, allowing reassessment and adjustment when necessary. (Limited 2019, pp. 76-77) In this context, evaluation becomes meaningful only when it contributes to sustained development and supports the organization’s long-term service management capability.

3.6.2 Embedding Improvement into Organizational Practices

Within ITIL 4, continual improvement is described as an embedded organizational practice rather than a separate or occasional activity. The purpose of the continual improvement practice is to align services and practices with changing business needs through ongoing, structured development efforts. (Limited 2019, pp. 89-92) This requires that improvement is not treated as an isolated initiative, but as an integral part of everyday service management.

A key aspect of embedding improvement into practice is the systematic identification, documentation, and prioritization of improvement opportunities. ITIL 4 emphasizes that organizations should actively log improvement ideas, assess their potential value and impact, and ensure that resources such as time and budget are allocated accordingly. (Limited 2019, pp. 89-92) The continual improvement register (CIR) serves as a structured mechanism for capturing and managing these opportunities, ensuring that improvement initiatives are visible, traceable, and aligned with organizational objectives.

Furthermore, continual improvement must be supported by leadership commitment and a shared culture. ITIL 4 highlights that improvement is everyone’s responsibility and should be reflected in job descriptions, objectives, and even supplier contracts. (Limited 2019, pp. 89-92) Without visible support from senior management, improvement efforts risk being overshadowed by daily operational pressures. By embedding improvement into roles, governance structures, and cross-organizational coordination, organizations can ensure that post-change findings translate into sustained development rather than isolated corrective actions.

3.6.3 Strengthening Long-Term Service Management Capability

By managing improvement opportunities in a structured and iterative manner, organizations gradually strengthen their ability to adapt to changing business needs. The model emphasizes alignment with organizational vision and goals,

ensuring that improvement efforts support long-term value creation instead of reactive problem-solving. (Limited 2019, pp. 76-77) As improvements are prioritized, implemented, and evaluated, service management becomes more consistent, transparent, and strategically aligned.

Over time, this approach supports the development of a more mature service management system. Instead of responding to changes individually, the organization builds mechanisms that enable continuous adaptation and informed decision-making. In this way, continual improvement enhances resilience and ensures that services evolve alongside the organization’s objectives. (Limited 2019, pp. 76-77)

4 Implementation of Interview Process

This chapter describes how the interviews were carried out and how the collected data was handled and analysed. It provides an overview of the research process from conducting the interviews to transforming the collected material into a structured form suitable for analysis. The chapter also explains the analytical approach used to interpret the data and identify meaningful patterns and insights.

4.1 Interviews

The interviews were conducted to form an overall understanding of post-implementation monitoring and evaluation of changes in different organizations. Five individuals participated in the interviews, and each participant represents a different organization. This made it possible to include a range of perspectives and practices from different operating environments. An overview of the participating organizations is presented in Figure 8.

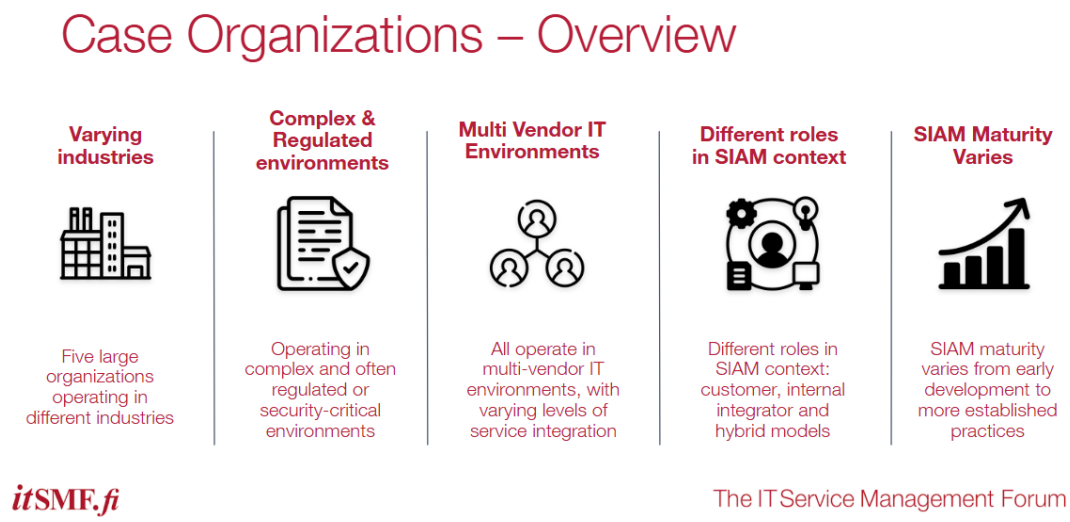

Figure 8. An overview of the participating organizations.

The interviews were conducted as semi-structured individual interviews, and all five interviews were carried out via Microsoft Teams video calls. This method was chosen because it ensured that the same themes relevant to the project were discussed in every interview, while still allowing the interviewees to describe their experiences and views in their own words. The interview questions are presented in Appendix 1.

4.2 Data Processing

The interview data was processed systematically at multiple stages. During the interviews, both audio recordings and written notes were collected. After the interviews, the recordings were reviewed and compared with the notes to ensure accuracy. Based on this material, a summary was created for each interview.

All interview summaries were anonymized to ensure that individual interviewees cannot be identified. This was considered important due to the potentially sensitive nature of the interview data. The anonymized interview summaries are provided in the appendices 2-6. The overall interview data processing workflow is illustrated in Figure 9.

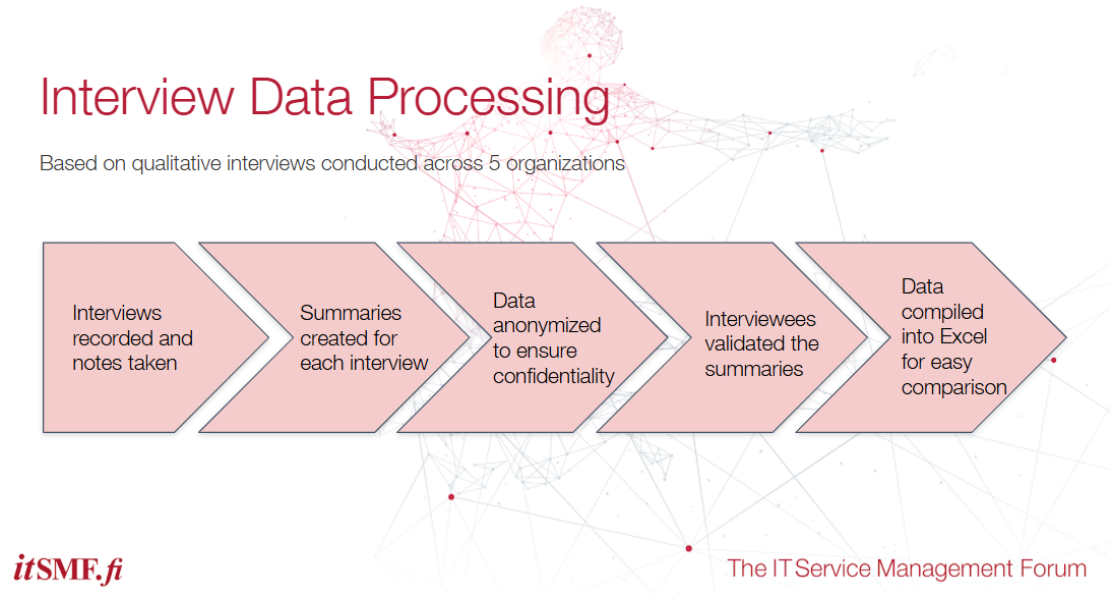

Figure 9. Interview data processing workflow.

The interview summaries were then validated by the interviewees to ensure their correctness. Based on the approved summaries, the key responses from all interviews were compiled into an Excel file (Appendix 7). This enabled easy comparison between the interviews and supported the development of the current state analysis.

4.3 Method of Analysis

The data was analysed using qualitative content analysis. This method is well suited for organizing and interpreting interview data when the aim is to identify key phenomena, practices, and areas for development within the studied topic.

The analysis was conducted by structuring the data into predefined thematic categories. These themes were based on the interview framework, which guided the organization of the material. Relevant responses and observations were then identified, condensed, and categorized to form sub-themes. This approach enabled the identification of recurring patterns as well as differences between the interviewees.

The objective of the analysis was not to describe individual responses in isolation, but to build a comprehensive understanding of how post-implementation monitoring and evaluation of changes are carried out in the organizations. The method also made it possible to identify both key shortcomings in current practices and existing strengths, supporting the overall aim of producing a holistic current state analysis.

5 Current State Analysis

This chapter presents the key findings of the project and provides an overall view of post-implementation monitoring and evaluation of changes. The analysis is based on interview data, which has been structured according to key thematic areas. The chapter describes the current practices, processes, roles and responsibilities, as well as how monitoring and evaluation are carried out in the organizations. In addition, recurring patterns and differences between interviewees are identified and highlighted.

5.1 Background

This section examines the background of the interview material and introduces the professional roles of the interviewees. It focuses on the kinds of positions in which the interviewees work and the responsibilities connected to those roles.

In addition, the analysis considers the organizational environments in which the interviewees operate. This helps to provide context for the interview material and supports the interpretation of the findings presented in the following sections.

5.1.1 Interviewee Roles and Responsibilities

The interviewees worked in specialist and responsible roles related to service management, service integration and change management. The interviewees represented professionals from large Finnish organizations across multiple sectors. The roles represented in the interviews were Service Owner, Lead

Service Integration, Service Management, IT Service Management Officer and SMO Lead.

The interviewees worked in positions that involved managing, coordinating and monitoring service-related changes and their implementation. Their roles required both operational involvement and a broader understanding of how changes are managed within the organization.

5.1.2 Organizational Operating Environments from the Perspective of Changes

Based on the interviews, all organizations operated in environments involving multiple vendors, partners or internal service providers, but the scale and structure of these environments varied considerably. One interviewee described a large multi-vendor environment with approximately 150–160 vendors, although only some of them were involved in change management. Another described a hybrid model in which a SIAM model was still under development. A third referred to an environment with several vendors, including fewer than ten major vendors but dozens in total when smaller suppliers were also taken into account. One interviewee described around ten partners and consultants involved in implementing changes, even though the environment was not defined as a formal multi-vendor model. Another described a complex SIAM environment in which some services were managed internally while others were delivered through partners and outsourced arrangements.

Taken together, the responses show that changes were implemented in settings where several parties were involved, but the ways in which these environments were structured and understood differed. In some cases, the environment was described explicitly through SIAM-related terminology, whereas in others it was framed more as practical co-operation between multiple vendors and partners without a clearly defined model. This suggests that the organizations differed not only in scale, but also in how formally the multi-vendor nature of the environment was recognized and organized.

5.1.3 Nature and Frequency of Changes Deployed to Production

Based on the interview responses, the changes deployed to production vary in nature and not all environments have clearly recurring change types. The responses referred to infrastructure changes such as firewall and disk space changes, as well as deployments, software and application updates and changes implemented through service requests. In some cases, recurring infrastructure-related changes were emphasized, whereas in others the overall set of changes was described as more varied.

The frequency of production changes also differed between the responses. Two interviewees reported that changes are implemented daily, while one described them as occurring almost weekly. The remaining two did not identify a clearly recurring frequency. In the environments where changes were implemented daily, the reported volume ranged from 1 to 20 changes per day. Taken together, the responses suggest that production changes differ not only in type, but also in how regularly and intensively they are carried out.

5.2 Post-Deployment Change Process

This section examines the post-implementation monitoring and evaluation process of changes. It focuses on how the process is carried out in practice, how consistent the existing ways of working are and whether formal processes or guidelines are in place.

The analysis also considers how long the changes are typically monitored after deployment to production. The purpose of this section is to provide an overall view of how systematically post-implementation monitoring and evaluation are conducted in different organizational contexts.

5.2.1 Practical Implementation and Formalization of the Process

Based on the interview responses, there are clear differences between organizations in how post-implementation monitoring and evaluation are carried out in practice. One interviewee described the process as rather unstructured, where common ways of working have not been clearly defined. In contrast, three interviewees described change handling as part of an established ticketing and change management process, where changes are recorded in the system, processed according to predefined classifications and followed after deployment through monitoring and incident management. This suggests that organizations differ especially in how clearly and consistently monitoring and evaluation are integrated into everyday work.

The responses also show variation in whether a formal process, guideline or operating model exists. One interviewee stated directly that no formal process exists, which points to a clear structural gap. Three interviewees referred to at least a basic process or a formal operating model. However, the existence of a formal process does not automatically mean that it is applied in a fully consistent way in practice. One interviewee described that although a process exists in principle, its implementation relies partly on experience and situational judgment.

The responses also indicate that post-implementation monitoring and evaluation are often triggered by problems rather than carried out as a routine part of every change. Three interviewees described that changes are examined more closely only when they cause disruptions, deviations or other observations that require further investigation. If a change proceeds without visible issues, a broader evaluation may not take place. This points to a reactive approach, where evaluation is closely linked to operational disturbances instead of being used systematically to assess outcomes more broadly. As a result, organizations may gain information about failures, but less consistently about successful changes, recurring patterns or opportunities for improvement.

5.2.2 Duration and Focus of Change Monitoring

Based on the responses, the duration and focus of change monitoring vary considerably between organizations. Two interviewees described that no clear time frame has been defined for monitoring and that follow-up is mainly focused on problem situations or the identification of deviations. One interviewee described monitoring as short-term, lasting approximately one day, while another interviewee referred more generally to short-term and case-specific monitoring practices. In addition, one interviewee indicated that small changes are not monitored at all and that there is no established monitoring practice for larger changes either. This suggests that monitoring is often shaped by practical needs rather than by a predefined and consistent model.

The responses also emphasize that the focus of monitoring is often on identifying deviations, incidents and other observable problems. Three interviewees highlighted that closer evaluation typically takes place only when disruptions or other issues requiring further investigation are detected. In some cases, monitoring may continue at a general level, for example through metrics, but more detailed evaluation is not carried out unless problems arise. This suggests that monitoring appears in several responses to be more reactive than systematically predefined. Although this case-specific flexibility may be practical, it may also reduce consistency between cases and make it more difficult to determine when basic follow-up is sufficient and when a broader post-implementation evaluation is needed.

When monitoring practices are not clearly predefined, the process may become less predictable and more difficult to compare across cases. This can make it harder to identify recurring issues, evaluate whether similar changes are followed up in a consistent way and build a more systematic understanding of what supports successful outcomes. It may also limit opportunities to learn not only from unsuccessful changes but also from those that are completed without visible problems.

5.3 Roles

This section examines who participates in the monitoring and evaluation of changes and how responsibilities are distributed among different actors. In addition, the analysis focuses on how clearly roles are defined and how the distribution of responsibilities is implemented in practice across different organizations.

5.3.1 Participating Roles

Based on the interviews, multiple roles are involved in the monitoring and evaluation of changes, but the distribution of roles and level of participation vary between organizations. Three interviewees highlighted that both technical and managerial roles are involved, such as Change Manager, Service Manager, Change Requester, as well as other IT service management roles.

Three interviewees described a situation where the evaluation of changes is not the responsibility of a single clearly defined role but instead involves multiple actors at different stages. For example, the team responsible for preparing and implementing the change may play a key role, while in some organizations there are also specific roles or groups involved, such as a Change Leader or participants in post-implementation review meetings.

In one case, a more centralized distribution of responsibilities was emphasized. The Change Manager was described as having overall responsibility for changes, even though several other roles participate in the evaluation process. In addition, supporting and coordinating roles were identified, such as the Service Management Office (SMO), whose responsibility is particularly to coordinate activities and maintain an overall view.

On the other hand, two interviewees pointed out that a clearly defined, separate monitoring group is not always established, and evaluation is instead carried out as part of daily operations. This suggests that roles are not fully defined or

standardized in all organizations. In addition, this may make it more difficult to clearly identify and track responsibilities in practice.

5.3.2. Distribution of Responsibilities

The findings indicate that the distribution of responsibilities between different actors is largely inconsistent. Two interviewees noted that although models and practices are defined, for example through RACI matrices, the distribution of responsibilities is not fully clear in practice.

The lack of clarity in responsibilities is particularly emphasized in multi-vendor environments. One interviewee highlighted that practices may be inconsistent, for example in ticketing systems, and that both leadership and the distribution of responsibilities are perceived as partly unclear. This was seen as a significant challenge, especially in SIAM environments.

In one case, however, the distribution of responsibilities is described more clearly. In this situation, responsibilities are divided by process stages, for example so that testing is handled by the customer, documentation by the implementation team, deployment by a technical party, and post-go-live activities by the service manager. This suggests that a process-based distribution of responsibilities can be effective when it is clearly defined.

In addition, two interviewees emphasized that the distribution of responsibilities is situation-specific and depends, for example, on the nature of the incident or the impact of the change. While this introduces flexibility, it also reduces consistency and predictability. Furthermore, this may make it more difficult to establish common practices between different actors.

5.4 Monitoring

This section examines how changes are monitored after deployment to production and when their success is evaluated more closely. The analysis focuses in particular on whether monitoring is carried out regularly or mainly in response to problems, as well as on what kinds of issues are emphasized in monitoring in practice.

5.4.1 The Emphasis of Monitoring on Regular or Problem-Based Evaluation

Based on the interview responses, changes are monitored in all of the organizations but the ways in which monitoring is carried out vary. In some responses, monitoring appeared as part of continuous operational activity, whereas in others it was emphasized especially when a change led to disruptions, deviations or other observations requiring further investigation. On this basis, monitoring does not appear to be structured in the same way in all organizations.

The responses also suggest that basic monitoring and more detailed evaluation are not the same thing. Although changes may be monitored as part of normal situational awareness, broader assessment appears to focus especially on situations where problems are observed in the effects of the change. Monitoring may therefore be continuous but more detailed evaluation is not necessarily carried out in the same way for every change.

5.4.2 Focus Areas and Emphasis of Monitoring

Based on the responses, monitoring focuses above all on incidents, deviations, service status and other operational effects that become visible after a change. In two responses, the emphasis was on technical monitoring and the observation of incidents, whereas in others monitoring was described more as maintaining a broader situational view or taking place at several levels. This suggests that in

practice, the main focus of monitoring is on identifying visible effects after deployment.

The responses also indicate that the scope of monitoring is influenced by available resources and the number of changes. Not all changes are monitored with the same level of detail and attention is directed more selectively to situations in which disruptions or other unusual observations occur. On this basis, monitoring appears primarily as a way of maintaining overall visibility and identifying problems, whereas more in-depth evaluation of individual changes is directed at a more limited set of cases.

5.5 Success

In this section, success is examined based on the responses collected in the interviews. The results show that success is not defined in a single, simple way. Instead, it is understood as a combination of several factors related to outcomes, processes, and stakeholder perspectives. Two interviewees defined success through technical success, and another two interviewees defined success through having no disruptions.

5.5.1 Value Delivery and Efficiency

First, all interviewees describe success in terms of delivering value. This means that the result should meet the original goals and provide some kind of benefit to the customer or organization. In addition to this, completing tasks on time and working efficiently are also seen as important. Two interviewees' responses highlight that even a good outcome may not be considered successful if the process is slow or poorly managed.

5.5.2 Quality and Stakeholder Satisfaction

Quality is another key factor. Two interviewees emphasize that the final deliverable should meet expectations and function as intended. This shows that success is not only about finishing something, but also about how well it is done. Closely related to this is stakeholder satisfaction. If the customer or other stakeholders are not satisfied, the result is often not considered successful, even if the technical implementation is correct.

5.5.3 Defining Failure

Failure, on the other hand, is generally described as the opposite of the elements described above. Common examples include not meeting goals, delivering poor quality results, delays, and miscommunication. One answer suggests that failure is often caused by unclear expectations or weak communication rather than purely technical issues. This highlights the importance of coordination and shared understanding within projects. Four interviewees defined failure through one or more of these definitions.

5.5.4 Technical vs. Business Success

One of the key themes in this section is the difference between technical success and business success. Technical success refers to whether a solution works correctly from an engineering perspective, while business success focuses on whether it creates value or achieves its intended purpose.

All interviewees recognize both aspects of success. However, the findings indicate that evaluation in practice is primarily based on technical performance and service functionality. Four interviewees emphasized technical success or service reliability as the main evaluation criterion, while business value was either considered indirectly or not systematically assessed.

This suggests that although business success is acknowledged conceptually, technical success is treated as the primary measure in practice. In this sense,

technical success functions as both a prerequisite and the dominant evaluation criterion, while business value remains a secondary or less formalized aspect of success.

In addition, some variation can be observed depending on the role of the interviewee. Those with more technical responsibilities tend to emphasize correctness and implementation quality, while others highlight outcomes and impact more broadly.

5.5.5 What Drives Success in Change Management

Overall, the results suggest that success should be viewed as a combination of multiple dimensions. It is not enough to focus only on technical performance. Instead, successful outcomes require good communication, clear goals, efficient execution, and alignment with stakeholder needs. The findings also indicate that improving communication and defining expectations more clearly could help reduce failures in future projects.

5.6 Metrics

This section examines what metrics are used in organizations to evaluate the success of changes, how consistent these metrics are, and what gaps have been identified in measurement practices. In addition, the analysis focuses on how systematically measurement is utilized and how well it supports the overall evaluation of changes.

5.6.1 Metrics in Use

Based on the interviews, the metrics used vary significantly between organizations. One interviewee indicated that metrics are not clearly defined or are not used at all. In contrast, three interviewees described the use of multiple metrics, particularly related to change success and incidents.

Key metrics identified include change success rate, change-related incidents, major incidents, and the number of rollbacks. These metrics are used to evaluate the relationship between changes and incidents, as well as the number and severity of incidents, such as production disruptions.

One interviewee described a more clearly defined measurement framework, where measurement is based on dashboards and a structure built around KPIs and CSFs (Critical Success Factors). These metrics emphasize the provision of information needed for day-to-day management and monitoring. Furthermore, this suggests that measurement is utilized as part of operational management, rather than solely for retrospective evaluation.

5.6.2 Key Metrics

The findings indicate that the importance of metrics varies depending on the organization and the perspective from which they are evaluated. One interviewee did not identify any key metrics, while one interviewee emphasized that the most important metrics depend on the perspective.

Two interviewees highlighted incidents as playing a central role, particularly major incidents and metrics related to service support queues. In addition, one interviewee emphasized that the most important metrics depend on the perspective. For example, from the SMO (Service Management Office) perspective, the key focus is on controlled execution of changes, proper documentation, and overall management of the process.

5.6.3 Consistency of Metrics

The consistency of metrics varies between organizations. One interviewee described the metrics as consistent, while another interviewee stated that the metrics vary depending on the change situation. In addition, one interviewee indicated that no metrics are used, and two interviewees did not clearly define or address the consistency of metrics.

This suggests that measurement practices are not fully standardized but may vary across organizations and situations. Furthermore, this may make it more difficult to compare results and form a consistent overall view across different actors.

5.6.4 Gaps in Metrics

The interviews indicate that several development needs have been identified in measurement practices. Four interviewees highlighted different types of gaps, including the need to develop KPI-based metrics and improve overall visibility. In addition, gaps were particularly identified in measuring business value and the long-term impact of changes.

One interviewee emphasized the need to better understand the effects of changes on service availability and end-user experience. Metrics related to monitoring service status, such as service pool-type solutions, were also mentioned as potential areas for development. Furthermore, one interviewee noted that although the need for new metrics has been recognized, more detailed definitions have not yet been established.

5.7 Multi-Vendor Environment

From the interview data, the impact of a multi-vendor environment on change monitoring and evaluation can be described as predominantly increasing complexity, while also introducing variability in how organizations perceive and manage this complexity.

5.7.1 Impact on Change Monitoring

The findings indicate that a multi-vendor environment generally increases complexity and makes change monitoring and evaluation more challenging. Several interviewees noted that it complicates the understanding of change

impacts, particularly due to dependencies between systems. It was also described as increasing overall operational complexity.

In addition, monitoring becomes more multifaceted. One interviewee highlighted that change management becomes more diverse, where defining the level of change request documentation and tracking third-party changes becomes more important. Another interviewee emphasized that responsibility is shared across one or more partners, and monitoring may extend to external services, not only internal ones.

However, not all interviewees experienced a clear impact. One of them stated that they do not recognize a multi-vendor environment in their context, suggesting variation in organizational setups and perception.

5.7.2 Standardization of Practices and Metrics Across Vendors

The results show that practices and metrics across vendors are generally not fully standardized. One interviewee stated that there are no unified practices, while another described partial harmonization without a clear overall model. In two cases, metric detail varies depending on service area, even if core change management practices are shared.

At the same time, certain common elements exist across vendors. These include visibility of upcoming changes, assessment of resource needs, and prioritization of change. Three interviewees also reported that they rely heavily on shared internal systems, which align vendors to common tools and metrics.

5.8 Post Implementation Review

This section examines how organizations handle failed changes, document lessons learned and conduct post-implementation evaluations. It focuses on the consistency and structure of these practices, as well as how effectively organizations can capture and utilize learnings from failures.

5.8.1 Handling of Failed Changes

The findings indicate that the handling of failed changes varies significantly between organizations, with no fully consistent approach. One interviewee described the process as uneven across teams, with no unified model in place. In contrast, three interviewees highlighted the use of structured practices such as post-implementation reviews (PIR), where failures are analysed and lessons learned are documented.

More formalized approaches were also identified. One interviewee combines official processes with follow-up evaluations, and in more severe cases applies separate post mortem practices to analyse incidents collaboratively and extract learnings. Another interviewee described a centralized model, where a process owner reviews failed changes, documents outcomes, and defines follow-up actions. Overall, the findings suggest a mix of reactive and structured practices, depending on organizational maturity.

5.8.2 Documentation and Utilization

The documentation and use of lessons learned appear inconsistent across organizations, where one interviewee reported that practices are unclear and not systematically applied, making this a clear area for development. Other described more structured approaches, such as where learnings are documented through PIR processes, lessons learned practices, and problem management workflows that include root cause analysis.

In some cases, as three interviewees presented, that documentation is integrated into existing tools, such as the same systems used for managing changes, while others apply specific methods like the “5 Whys” technique to identify underlying causes. Ticket-based documentation was also mentioned, with the aim of reusing knowledge to prevent recurring issues. Overall, while mechanisms for capturing learnings exist, their systematic use varies.

5.8.3 Use of Systematic Procedures

The findings suggest that systematic post-implementation reviews are not consistently conducted across organizations. In two cases, reviews are only partially implemented or carried out reactively, for example by requiring written explanations after failed changes rather than following a standardized process.

Two interviewees indicated that reviews are primarily conducted in specific situations, such as major incidents or service-specific issues, often combined with root cause analysis. One interviewee noted that post-evaluations are mainly performed in problem situations rather than for all changes. This indicates that while post-implementation reviews are recognized as valuable, their application is often selective rather than systematic.

5.9 Current State and Development Needs

In this section, the interview data is examined from a development perspective, providing a comprehensive overview of current change management practices while highlighting both existing strengths and areas for further development.

5.9.1 Existing Strengths

Regarding practices that work well, interviewees provided somewhat mixed assessments. Two interviewees perceive the current practices as functional and practical. The processes are described as reasonable and not overly bureaucratic, which supports efficiency in daily operations. In addition, one interviewee specifically highlighted that the use of existing tools and systems, including CAB and related system tools, function well.

Production stability during changes was also identified as a strength. According to one interviewee, this is supported by the relatively small scale of changes, which helps prevent operational disruptions. Furthermore, one interviewee

highlighted good overall visibility into changes and services, suggesting that situational awareness has been developed systematically.

However, one interviewee stated that no clearly well-functioning elements exist within the current monitoring and evaluation practices, suggesting inconsistency in how these practices are experienced.

This suggests that the organization has a relatively stable operational foundation for change management, particularly in execution, supported by existing tools and operational stability, while evaluation and continuous learning appear less developed.

5.9.2 Identified Development Needs

Multiple development needs emerged from the interviews. A central theme is the absence of a unified process and operating model for change monitoring and evaluation, which was raised by two interviewees. This suggests that change monitoring and evaluation are not yet embedded into a standardized organizational framework, which may lead to inconsistencies in how changes are assessed across the organization.

Evaluation is often triggered by incidents, as noted by four interviewees. This indicates that learning tends to be incident-driven, while insights from successful and well-executed changes are not systematically captured. This pattern indicates a reactive approach to change management, where organizational learning is primarily driven by failures rather than systematic evaluation of successful changes, limiting opportunities for proactive improvement.

Communication and clarification of responsibilities were also emphasized by two interviewees, particularly in disruption situations where roles and communication practices are not always clear. Additionally, one interviewee pointed out that the volume of available information makes it difficult to effectively time and target communication. This may increase the risk of misalignment during critical

incidents, where unclear roles can delay response times and reduce the effectiveness of change execution.

Other identified development areas include improving risk assessment practices, ensuring that changes are implemented in more controlled timeframes, and strengthening organizational competence through training. One interviewee also highlighted the need to better link changes to business value and to improve integration across different organizational levels. This reflects a need to strengthen the connection between IT changes and business outcomes, indicating that value realization is not yet fully integrated into change management practices.

5.9.3 Metrics, Roles and Operational Practices

In terms of metrics, roles, and practices, the findings indicate partial maturity alongside clear gaps. One interviewee perceived the existing structures as relatively established. However, a need for shared KPIs, dashboards, and more data-driven management practices remains, as identified by four interviewees across different aspects. This suggests that while certain foundational structures are in place, performance management is not yet consistently supported by unified or organization-wide measurement frameworks.

The creation or clarification of roles related to communication, training, and organizational change management was also suggested by one interviewee. Furthermore, two interviewees emphasized the importance of standardizing practices and ensuring that operating models are consistently implemented across different units. These development needs further highlight the importance of establishing a more consistent and unified approach to metrics, roles, and operational practices across the organization.

5.9.4 Value Measurement

The measurement of value is currently limited. Four interviewees noted that value is not systematically monitored or not monitored at all. There is a clear need to develop KPI-based measurement approaches, including factors such as costs, customer satisfaction, and end-user experience, as highlighted by two interviewees. Additionally, one interviewee emphasized that value and success could be tracked by change type. This indicates that value measurement is currently fragmented and lacks a consistent framework for evaluating change outcomes across the organizations.

In addition, making value more visible through communication was emphasized by one interviewee, particularly to highlight successfully and efficiently implemented changes. Furthermore, two interviewees emphasized the importance of shifting the focus toward customer-perceived value and understanding the broader business impact of changes. Measuring value across different types of changes was also identified as a key improvement area.

5.10 Summary

This shows that post-implementation monitoring and evaluation of changes vary significantly across organizations in terms of structure, consistency, and maturity. While changes are implemented frequently in complex, multi-vendor environments, monitoring and evaluation practices are often only partially formalized and tend to rely on reactive approaches. Evaluation is typically triggered by incidents or deviations rather than conducted systematically for all changes, which limits the ability to learn from both successful and unsuccessful outcomes.

Roles and responsibilities are distributed across multiple actors, but they are not always clearly defined or consistently applied, especially in multi-vendor environments where coordination challenges are more pronounced. Monitoring focuses primarily on identifying operational issues such as incidents and service

disruptions, with less emphasis on broader outcome evaluation or business impact.

Success is understood as a combination of value delivery, quality, efficiency, and stakeholder satisfaction, with business outcomes generally considered

more important than purely technical success. However, measurement practices are inconsistent, and there are notable gaps in tracking business value and long-term impacts. Although some structured practices such as post-implementation reviews and root cause analysis exist, their application is often selective rather than systematic.

Overall, interviewees demonstrate some strengths in operational efficiency and situational awareness, but key development needs include clearer processes, improved role definition, better communication, standardized metrics, and more systematic value measurement. The findings highlight the need for a more unified and proactive approach to monitoring, evaluation, and organizational learning.

6 Conclusion

This section brings the report to a close by summarizing the main results of the project and reflecting on how well the original objective was achieved. It looks at the main findings of the current state analysis, reviews the overall outcome of the project, and considers the value of the work for both the stakeholders and the project team.

The section is divided into three parts. The first part, the executive summary gives an overview of the purpose of the project, how it was carried out and what the main results were. The second part looks at how well the project met its objectives. The last part has final thoughts on what was learned during the project and why the project was meaningful.

6.1 Executive Summary

This report addressed the business challenge of understanding how organizations currently monitor and evaluate IT service changes during transitions to production in increasingly complex multi-vendor environments. These environments involve multiple service providers, shared systems, and distributed responsibilities, making governance, coordination, and post-implementation control significantly more difficult. The primary objective was to create a structured current state analysis of existing monitoring and evaluation practices, identify strengths and weaknesses, and provide a foundation for improving these practices in alignment with ITIL 4 and SIAM principles.

The project was conducted in several connected stages. First, a comprehensive literature review established the theoretical framework by examining ITIL 4, IT Service Management, SIAM, change enablement, post-implementation review, performance metrics, and continual improvement. This stage provided the conceptual basis for understanding best practices and identifying what effective monitoring and evaluation should include. The literature findings directly informed the design of the interview framework by defining the key themes, such as governance, metrics, roles, success criteria, and multi-vendor complexity.

The second stage was the qualitative data collection process, where five semi-structured interviews were conducted with professionals from different organizations operating in relevant service environments. These interviews generated practical insights into real-world monitoring and evaluation practices.

The third and final stage resulted in the current state analysis, that examined how organizations currently manage production changes, revealing that while formal processes often exist, monitoring is frequently inconsistent, reactive, and operationally focused. The current state analysis identified strengths, such as established technical processes, change categorization, and tool support, but also challenges, including unclear roles, fragmented governance, limited value-

based metrics, inconsistent vendor standardization, and overreliance on incident-driven evaluations.

Each stage informed the next in a deliberate progression: literature established in the framework, interviews validated and contextualized it, and current state analysis described the current operational reality. This structured research logic ensured that the project moved systematically from theoretical understanding to practical diagnosis and ultimately to the current state analysis, where the current situation of interviewed organizations is described as clearly as possible.

6.2 Report Evaluation: Objective vs. Results

The primary objective of the project was to systematically identify and analyse current monitoring and evaluation practices used during transitions to production in multi-vendor IT service environments. The project aimed to understand how organizations monitor implemented changes, examine how change success is evaluated, identify strengths and weaknesses in existing governance, metrics, operational practices and to provide a structured current state analysis.

The current state analysis was built in close collaboration with the project stakeholders, so that the results would depict the current state as accurately as possible. The stakeholders also consisted of the interviewees, who validated the interview summaries. This ensured the accuracy and usability of the current state analysis in the itSMF Finland webinar and future changes.

Overall, when comparing the results and objective, the project was a success, and results were praised by the stakeholders. The challenges along the way were deadline and the interviews, where better time management and control of the interview proceedings would have made a beneficial impact.

6.3 Final Words

Conducting this project has taught us a lot as a team and individuals. It gave us an opportunity for insight into ITIL and SIAM being used in real life organizations with different challenges and operational environments. We also learned about working with stakeholders, presenting in an official webinar, and managing the project and ourselves.

Therefore, we want to thank everyone who helped us with the project and made it possible, including itSMF Finland, the interviewees, and our supporting teachers, for their support, collaboration, and valuable learning opportunities throughout the process.

References

Atlassian. n.d. Post-implementation review: what it is & how it works. Available at: https://www.atlassian.com/work-management/project-management/post-implementation-review (Accessed 27 February 2026)

Cybiant. 2020. Service Integration and Management (SIAM) Professional Body of Knowledge. Available at: https://www.cybiant.com/knowledge/introduction-to-itil-4-key-concepts/ (Accessed 25 February 2026)

Danby, S. 2025. 'Change Enablement in ITIL 4: Definition, Practice & Best Approaches. Available at: https://itsm.tools/change-enablement/ (Accessed 26 February 2026).

Dempsey, M., Geitner, L., Brennan, A. & McAvoy, J. 2021. A Review of the Success and Failure Factors for Change Management. Available at: https://www.researchgate.net/publication/356573664_A_Review_of_the_Success_and_Failure_Factors_for_Change_Management (Accessed 26 February 2026)

Ewert, R. & Wagenhofer, A. 2012. Using Academic Research for the Post-Implementation Review of Accounting Standard. Available at: https://onlinelibrary-wiley-com.ezproxy.metropolia.fi/doi/full/10.1111/j.1467-6281.2012.00362.x (Accessed 28 February 2026)

Limited, A. 2019. ITIL Foundation: ITIL 4 Edition. Available at: ProQuest Ebook Central. (Accessed 25 February 2026)

Mann, S. 2026. What is ITSM? Definition, Benefits, and Best Practices (2026 Guide). Available at: https://itsm.tools/what-is-itsm/ (Accessed 27 February 2026)

Straud, R., Ferris, K. 2019. Service Integration and Management (SIAM)

Professional Body of Knowledge Second Edition. Available at:

https://www.scopism.com/wp-content/uploads/2021/03/SIAM-Professional-

Body-of-Knowledge-2nd-edition.pdf (Accessed 25 February 2026)

Appendix 1: Interview Questions

Background and Role

Could you briefly describe your role and responsibilities in the postimplementation monitoring and evaluation of changes?

In what kind of a multi-vendor environment does your organization operate from the perspective of changes?

What kinds of changes are typically deployed to production in your organization, and how often?

Process, Practices and Responsibilities (during and after deployment to production)

Could you describe the change monitoring and evaluation process?

Is there an official process, guideline or operating model for deployment to production and the post-implementation monitoring and evaluation that follows?

Who is involved in monitoring a change during its deployment to production and in the post-implementation monitoring and evaluation?

How are responsibilities divided between different vendors, the customer and other stakeholders at this stage?

How long is a change usually monitored after it has been deployed to production?

What is monitored regularly and what is monitored only in problem situations?

Is the success of changes evaluated regularly or only in problem situations?

Defining Success and Failure

How do you define whether a change has been successful after deployment to production?

How do you define whether a change has been unsuccessful?

Is the evaluation based on technical success, service functionality, or the realization of business value?

When evaluating a change afterwards, which tends to be emphasized more in practice:

that the change was technically and smoothly deployed to production, or

that it produced the expected value for the service or the business?

Metrics and Evaluation Methods

What metrics, indicators or other evaluation methods do you use to assess whether a change was successful or unsuccessful?

Which of these metrics are the most important in practice?

Are the metrics and evaluation practices the same for all changes or do they vary depending on the situation?

Is there an important metric that you would like to use but currently do not use?

Specific Characteristics of a Multi-Vendor Environment

How does a multi-vendor environment affect the monitoring and evaluation of changes compared to a simpler environment?

Do different vendors share common practices and metrics or does the approach vary between vendors?

Learning, Development and Current State

How are unsuccessful changes or changes that have caused problems handled afterwards?

How are lessons learnt or observations documented and utilized in future changes?

Are unsuccessful changes subject to a systematic post-evaluation?

How are root causes investigated?

Development Needs and the Future

What works well in the current monitoring, evaluation, and metrics practices?

Where do you see the greatest shortcomings or development needs?

What should be changed in order to evaluate the success of changes more effectively?

Do you think new metrics, roles or common practices are needed?

How could the value created by a change be monitored better than it is currently?

Appendix 2: P1 – Interview Summary

1. Background and Context

Change management is a key part of IT service management, especially in multi-vendor environments (SIAM), where several actors participate in service delivery. This report analyzes change management monitoring and evaluation practices in an organization where the SIAM model is still developing. The review is based on interview data and focuses on processes, roles, metrics, and development needs.

The objective is to identify the strengths and weaknesses of the current state and evaluate how the organization can evolve toward more strategic and business-driven change management.

2. Process and Practices

The organization operates in an environment where the SIAM model is still under development. Change management practices have not yet fully adapted to the requirements of a multi-vendor environment, and a hybrid model is currently in use.

The main tool is ServiceNow, which is in the process of being outsourced. Changes are categorized as standard, normal, and emergency changes. Jira and ServiceNow are integrated, but the tool environment is fragmented, as Slack and Kanban are also used.

Changes are mainly infrastructure-level, such as firewall and capacity changes, and are implemented regularly, even weekly. This indicates high operational activity and a need for efficient processes.

The organization has a clear basic process for managing changes. Changes are logged into the system, processed according to defined categories, and deployed to production through a ticketing process. After deployment, changes are monitored through monitoring systems and incidents.

Change monitoring is short-term and case-specific, with particular emphasis on multi-vendor incidents and major incidents. Although the process is technically functional, there is a gap between the ideal state and practical implementation. Communication and clarity of responsibilities are not at a sufficient level, indicating moderate process maturity despite advanced tools.

3. Roles and Responsibilities

The Change Manager plays a key role and has overall responsibility for changes. In addition, the Change Requester and Service Manager participate in evaluating changes. The Change Release process owner is responsible for production deployment and risk management. A weekly board meeting is also held to monitor process ownership.

Human behavior is inconsistent in ticket completion, and leadership and responsibility distribution are unclear. The roles of suppliers and customers are partly undefined. This is a significant shortcoming, especially in a SIAM environment where clarity of responsibilities is critical. Unclear roles may lead to delays, errors, and reduced service quality.

4. Monitoring and Evaluation Practices

Changes are monitored broadly and systematically within the organization. Monitoring is mainly based on incident tracking and continuous monitoring. However, the approach is more reactive than proactive.

Post-change incidents are monitored over a short period, with focus on major and multi-vendor incidents.

Although systematic monitoring is a strength, lack of clear leadership, incomplete ticket handling, and missing value measurement weaken overall effectiveness and create dissatisfaction among stakeholders.

5. Definition of Success and Failure

The success of a change is primarily defined from an operational perspective. A successful change does not cause disruptions or incidents and can be closed normally after post-implementation review. Business impact is assessed separately and in advance by the business side, but it is not followed up afterward.

Failure is associated with situations where a rollback is required or schedules fail.

This definition emphasizes technical and service functionality, while business value remains limited and is not systematically evaluated in the long term.

6. Metrics and Evaluation Methods

Key metrics include change success rate, change-related incidents, major incidents, and number of rollbacks. The metrics are consistent and provide a good view of operational performance, but they focus almost exclusively on technical success.

Missing perspectives include business benefits and long-term impacts of changes. This limits the organization’s ability to evaluate changes at a strategic level. Additionally, deeper analysis such as value and success by change type is not currently possible.

7. Impact of Multi-Vendor Environment

A multi-vendor environment increases operational complexity. The number of stakeholders grows, making coordination, responsibility distribution, and transparency more difficult.

Although standardized practices exist, their implementation is inconsistent. This highlights the need for clearer governance, role definitions, and communication structures.

8. Learning and Development

Post-implementation reviews (PIR) are used and lessons learned are documented. Root causes are analyzed through the problem management process. Current monitoring and evaluation practices, as well as CAB and system tools, are functioning.

However, learning remains mainly case-specific. Broader organizational learning and systematic use of knowledge are limited. Long-term monitoring is lacking, as well as measurement of end-user experience, value, and negative value.

9. Development Needs and Future

Value and success could be tracked by change type to enable deeper analysis and understanding. Improvements are needed in ticket quality, role clarity, leadership, and communication.

Training of key personnel is currently insufficient. With more standardized practices, a better metric framework in ServiceNow could be implemented to support identification and resolution of issues.

New roles, such as in Organizational Change Management (OCM) and communication, could improve operations. A clearer communication process, training responsibilities, and stakeholder communication structure would further support standardization.

Appendix 3: P2 – Interview Summary

1. Background and Context

The interviewee is responsible for service management. Based on the interview, SIAM in the organization refers to a practical way of integrating services without a separate service integrator. In change management, the most important service partners operate within the same process framework, and operations are managed through a shared process.

According to the interviewee, the organization does not have a clear SIAM structure that follows a textbook model, but it does implement many SIAM principles. This way of working has been used for about ten years. There are several service providers: there are fewer than ten major providers, but including smaller ones, the total number reaches dozens.

Based on the interview, the organization carries out significant changes on a regular basis. Changes include, for example, deployments, major software and application updates, and other changes implemented through service requests. According to the interviewee's estimate, around five such changes are typically made per day.

2. Process and Practices

Based on the interview, the change management process broadly resembles ITIL and especially follows an ITIL v3 style of operation. The process moves from need identification and change request submission to assessment and planning, processing and approval, communication, and, when necessary, post-evaluation. Risk and impact assessment are essential parts of change preparation.

According to the interviewee, the process involves a high degree of autonomy. Those preparing changes carry out much of the assessment themselves, and if it is not immediately clear where a change belongs or how it should be handled, the issue can be taken to the main CAB. Risk assessment is carried out using a

form that describes the change and its possible impacts, such as service outages or effects on other services.

Based on the interview, there is an official process and operating model for production deployment as well as for the follow-up and evaluation that take place afterwards. However, the interviewee notes that not everything can be learned from instructions alone; practical knowledge is also transferred through onboarding and day-to-day work. The tool strongly guides the process, and according to the interviewee, the process works well in practice.

3. Roles and Responsibilities

Based on the interview, the interviewee is responsible for the change management processes and acts as the chairperson. Participants in the main CAB include the secretary, the chairperson, the most important service providers, and the company's key service managers. In addition, the organization has domain-specific CABs, service management meetings, and long-term roadmap meetings.

According to the interviewee, the monitoring of production deployment and post-implementation evaluation primarily involve the team preparing and carrying out the change. There is no separate supervisory group; instead, the approach is described as self-monitoring. If a change causes significant problems, the matter may be escalated to the CAB.

Based on the interview, responsibilities among different providers, the customer, and other stakeholders are divided according to the source of the disruption or deviation.

4. Monitoring and Evaluation Practices

According to the interviewee, change monitoring and evaluation are carried out as needed, depending on the scope and impact of the change. If a change results in significant findings or disruptions, a PIR, or post-implementation review, is

conducted in order to make use of the lessons learned in the future. If the change proceeds normally without problems, a separate extensive evaluation is usually not required.

Based on the interview, all changes are generally monitored from an overall situational awareness perspective. In addition, individual operating areas monitor their own changes more closely. Monitoring after production deployment usually lasts for the same day or approximately 24 hours.

According to the interviewee, the success of changes is in principle evaluated regularly as part of the normal process. In practice, however, evaluation tends to focus especially on exceptional situations, because if everything proceeds normally, the change is interpreted as successful.

5. Defining Success and Failure

The interviewee defines a successful change primarily through its effects. Based on the interview, technical success alone is not sufficient if the change has harmful impacts on services. Therefore, success is assessed mainly in terms of how the change affects service functionality.

According to the interviewee, a change is defined as unsuccessful if it cannot be implemented and must be canceled, or if its effects cause services to malfunction. Based on the interview, the key issue is not only whether the change was technically deployed into production, but whether the service remained functional.

According to the interviewee, evaluation is based especially on service functionality and reliability. In this context, business value is seen above all in ensuring that services work. In post-evaluation, reliability emerges as the most important assessment criterion.

6. Metrics and Evaluation Methods

Based on the interview, the success of a change is assessed primarily by examining the relationship between changes and incidents, in other words, how many changes are implemented without problems.

According to the interviewee, service availability and user satisfaction may also be taken into account in evaluation, but these are viewed more from the perspective of the service itself than from that of the actual change process.

As a missing metric, the interviewee highlights the relationship between service usability and changes. According to the interviewee, it would be important to better measure whether changes actually make the end user’s work easier. At present, this is not measured sufficiently.

7. The Impact of a Multi-Vendor Environment

According to the interviewee, a multi-vendor environment makes the monitoring and evaluation of changes more complex. In the interview, key issues that emerged included defining the appropriate level for logging change requests and monitoring changes made by third parties. According to the interviewee, aligning these requires attention.

In the interviewee’s view, the current situation reflects a fairly good balance in the operating model. Based on the interview, situations in which a service provider or technology platform changes particularly increase the need for monitoring and require greater accuracy.

According to the interviewee, the basic change management practices are shared across different providers. However, more detailed monitoring and evaluation metrics may vary across operating areas and services.

8. Learning and Development

According to the interviewee, failed changes or changes that cause problems are handled formally through the process and, when necessary, through post-evaluation procedures. In more serious situations, post-mortem type practices are used. The interviewee also notes that post-evaluation of smaller changes could be carried out more often.

Based on the interview, lessons learned and findings are formally documented in the tool. In major incident situations, responsible persons are authorized to implement the agreed actions across different areas. According to the interviewee, PIR is systematically part of the operating model, and root cause analysis is directed to problem management.

The interviewee also points out that not everything can be managed through processes. According to the interviewee, what matters is how problems are responded to, how lessons are learned from them, and what kind of operating culture is built around them.

9. Development Needs and Future

Based on the interview, the current monitoring, evaluation, and metrics practices are considered effective particularly because of their practical nature. According to the interviewee, unnecessary governance is avoided and people are not burdened with needless paperwork. This is seen as a strength of the current operating model.

According to the interviewee, the greatest development needs relate to communication and the sharing of situational awareness. The interview revealed that the volume of information and its flow are so great that it is difficult to identify when things should be communicated and how successes should be made more visible.

According to the interviewee, the evaluation of change success could be improved by developing communication and increasing survey-based or sentiment-style feedback. At the same time, however, the interviewee estimates that the core structures of change management, such as metrics, roles, and practices, are already fairly well established. The development need relates more to how these are implemented in practice across different areas and how the value created by change can be made more visible, for example through communication.

Appendix 4: P3 – Interview Summary

1. Background and Context

Interviewee works as an IT Service Management Officer and is responsible for service production and change management. Based on their description, the organization's IT function is internal and provides services only within the company, and these services are not sold externally. Although external IT services are not produced in-house, external suppliers, such as consultants, are involved, and the organization operates in an integration role between them. However, infrastructure remains under internal control.

The organization does not identify itself as operating in a formal multi-vendor environment or following a SIAM model, even though suppliers are involved. All suppliers are required to use the organization's own systems and practices. Changes are implemented continuously, approximately 1-20 per day, often including firewall changes. Changes are categorized into three sizes: minor, significant, and major. A deployment calendar is in use, and larger changes are scheduled during a monthly maintenance window. Overall, the operating environment is highly dynamic and operational, with a strong focus on maintaining production stability.

2. Process and Practices

There is no single unified and formal process for moving changes into production; instead, practices vary depending on the type of change. However, a change leader is assigned to each change and is responsible for its entire lifecycle. Before implementation, the impacts and risks of the change are assessed, with the goal of protecting production from disruptions.

After deployment, monitoring takes place mainly through helpdesk tickets, focusing especially on incidents and emergency changes. A post-implementation review (PIR) process exists, but its execution is limited, as analysis is rarely

documented. Although the change leader is expected to perform a post-review and ensure, for example, that documentation is complete, this is not done systematically in practice. There is no standardized duration for monitoring: smaller changes may not be monitored at all, while monitoring of larger changes varies. This highlights a clear gap between the defined process and its practical implementation.

3. Roles and Responsibilities

Multiple actors participate in monitoring and evaluation, with interviewee playing a central role. When issues arise, the change leader, change team, and service managers are also involved. Within the organization, responsibilities are relatively clearly defined: the internal customer is responsible for testing, the implementation team for documentation, the technical team for deployment, and the service manager for responsibility after the change.

Although suppliers are involved in implementing changes, their role is controlled, as they must follow the organization’s systems and practices. Suppliers do not define operating models themselves but operate within the organization’s framework.

4. Monitoring and Evaluation Practices

Monitoring focuses mainly on problem situations, particularly incidents and emergency changes. It is not standardized and varies depending on the nature of the change, with no consistent practices in place. In some cases, metrics such as capacity, disk space, or throughput time are monitored, but these are not systematically defined.

Success is not evaluated systematically; instead, attention is directed toward failures. This means that the approach is clearly reactive rather than proactive, with little emphasis on anticipatory monitoring.

5. Definition of Success and Failure

A successful change is defined very simply in practice: if nothing is heard and no incidents occur, the change is considered successful. A failed change, in turn, is one that causes incidents or potentially user dissatisfaction, although the latter is not systematically tracked.

Evaluation strongly emphasizes technical success. Business value is considered mainly in larger projects but is not central in everyday change management. This means that changes are evaluated primarily based on their technical implementation rather than the value they deliver to the service or the business.

6. Metrics and Evaluation Methods

The metrics used focus mainly on technical aspects, such as the number and severity of incidents. Particular attention is paid to situations where production is disrupted or stopped. In addition, support queues are monitored as KPI metrics. In practice, incidents form the only consistent metric across different changes.

It is notable that successful changes are not measured at all, and the metrics used vary on a case-by-case basis. Identified gaps include the lack of an overall view of service status, the absence of a dashboard, and missing automated notifications from logging systems. The positive or negative impact of changes on services is also not systematically measured.

7. Impact of Multi-Vendor Environment

Although multiple suppliers are involved, the organization does not recognize itself as operating in a multi-vendor environment. In practice, suppliers operate within shared systems and practices, which creates a level of consistency. Their role is clearly controlled, and they do not have independent authority to define operating models.

The impact of the multi-vendor environment is not clearly identified, and no specific challenges related to it are highlighted. This suggests that while the environment exhibits characteristics of a multi-vendor setup, it is not conceptually recognized as such.

8. Learning and Development

Failed, major, and emergency changes are reviewed and discussed in monthly post-implementation review meetings. The aim is to understand why something went wrong and what could be done differently in the future. Root causes are analyzed using the 5 Whys technique.

Although learning is, in principle, part of the process, it is not very systematic. Documentation is limited, and analysis is not recorded comprehensively, which reduces the ability to utilize lessons learned in future changes.

9. Development Needs and Future

A key strength in the current state is the stability of production, which is considered the most important metric. In addition, most changes are relatively small, making them easier to manage, and the number of incidents is relatively low.

Development needs are particularly related to improving risk assessment, developing metrics, and standardizing monitoring practices. There is a clear need for common metrics and a dashboard, as well as for broader and more systematic monitoring. There is also a need to improve the scheduling of changes so that they occur in a more controlled manner rather than continuously.

A significant area for development is the consideration of the value generated by changes. Currently, change management focuses on technical implementation, and business value is not central. ITIL 3 is in use and ITIL 4 has not introduced major changes, there is recognition that value creation should be given more attention in the future.

Appendix 5: P4 – Interview Summary

1. Background and Context

The interviewee works in an SMO Lead role (Service Management Office) within a public-sector service integrator environment. The organization delivers some services internally, some in collaboration with partners, and some fully outsourced. Operations take place in a multi-vendor environment where the SIAM (Service Integration and Management) model is currently being implemented through operational activities.

The operating environment is complex, as multiple vendors participate in service delivery at different levels (e.g., platform providers and application providers). This increases dependencies and requires up-to-date situational awareness.

Changes follow the ITIL framework and are categorized, for example, into normal, standard, and emergency changes. Urgent changes are evaluated through risk management and risk analysis. A high volume of changes is implemented, which directly affects how extensively individual changes can be monitored after deployment to production.

The objective is to understand the operating environment in which change monitoring and evaluation take place, particularly considering the requirements set by a multi-vendor environment.

2. Process and Practices

The organization does not have a separate release management process; instead, change monitoring is part of change management. The success of a change is primarily evaluated based on whether it was implemented in production as planned and whether issues arise afterward.

Processes are actively described and developed, for example, through process diagrams. After changes, reviews focus on what was done, why it was done, and how potential issues can be avoided in the future.

Monitoring is conducted in two ways: at a general level through dashboards and metrics and on a case-by-case basis when issues or deviations occur.

Formal guidelines exist in the form of process diagrams, but practical implementation is partly situational.

3. Roles and Responsibilities

Multiple roles are involved in change monitoring and evaluation. Primary responsibility lies with service owners, such as service managers and component owners. The SMO operates in a supporting and guiding role, particularly from the perspectives of data-driven management and overall visibility.

The distribution of responsibilities varies by case, especially in a multi-vendor environment.

If the organization provides a platform to customers, the role of the platform provider increases overall complexity.

Access to up-to-date information and clarity of responsibilities between different actors are essential.

4. Monitoring and Evaluation Practices

Change monitoring is conducted at multiple levels. Due to the high volume of changes, continuous monitoring of individual changes is not feasible from a resource perspective.

Monitoring consists of continuous dashboard monitoring, annual-level reviews (annual cycles), service health monitoring (including service management and information security).

Individual changes are examined in more detail when issues or deviations occur. In such cases, interventions may be made, particularly in situations outside the G CAP process.

Data-driven management is based on comprehensive monitoring from multiple perspectives, and the SMO is responsible for providing this information to management.

5. Definition of Success and Failure

The success of a change is primarily evaluated through the change ticket, which describes the change and its associated risk management. In practice, success means that the change has been implemented technically correctly and in a controlled manner.

Adherence to schedules is not the primary success metric, as schedules often change even when the change itself is successful. However, this may impact the scheduling of other changes.

Failure is associated with situations where:

- the change does not function as expected in production
- disruptions or issues occur
- corrective actions are required

Evaluation is based on:

- technical success
- service functionality

The realization of business value is not a primary evaluation criterion.

In practice, the emphasis is clearly on ensuring that the change is deployed to production in a technically sound and controlled manner, with information security assured.

6. Metrics and Evaluation Methods

Dashboards are based on the CSMF and defined KPIs that specify what information is needed in daily operations. The most important metrics depend on the perspective.

From the SMO perspective, key aspects include:

- controlled change management
- documentation quality
- operational needs

The current set of metrics is considered to be in good shape.

7. Impact of Multi-Vendor Environment

The environment is more complex: the organization is responsible for its own services while working with one or more partners. This applies across processes from incident management to change management. It is necessary to monitor not only one’s own service management but also that of other providers. SIAM represents best practice for this.

Different vendors follow harmonized practices, meaning they are not dependent on a specific partner. However, each procurement is unique. The SMO supports procurement processes, ensuring that SIAM principles are correctly integrated through them.

8. Learning and Development

Unsuccessful changes are handled by the process manager, who reviews cases, documents them, and assesses whether further actions or follow-up are required.

Lessons learned and observations are documented in a ticket-based manner, with the aim of systematic learning from errors. Root cause analysis is a key part of this process and is conducted as needed.

Post-evaluation is not systematic in all cases and is primarily focused on problem situations.

9. Development Needs and Future

A key strength of the current state is strong situational awareness: the organization has a good understanding of what is happening in services and changes. This overall visibility has also been systematically developed.

Key development needs include:

- linking change management more closely to business value
- developing organizational culture to better align with the SIAM model
- better integration of SIAM’s strategic, tactical, and operational levels

In particular, the value generated by changes is not currently monitored sufficiently. In the future, the focus should shift more toward how changes impact customer-perceived value, rather than focusing solely on technical success.

Appendix 6: P5 – Interview Summary

1. Background and Context

The interviewee operates in a Service Owner role and is responsible for overall service management as well as agile development tools. The organization operates in a multi-vendor environment with approximately 150-160 suppliers in total, of which fewer than 20 are actively involved in change management.

The company applies the SIAM model, but it has not been implemented in a textbook manner, and for example, clear contractual structures or a SIAM integrator are not in place. The operating model is strongly vendor-driven, with the organization primarily acting in a customer role.

Changes vary significantly in nature, as the organization manages a broad portfolio of applications and infrastructure. It is difficult to identify recurring change types, and changes occur at varying scales and frequencies.

2. Process and Practices

Based on the interview, the organization does not have a clearly defined or unified process for post-implementation monitoring and evaluation of changes. The current state is described as weak, and this area has been identified as a development target.

The organization utilizes agile practices such as Definition of Ready (DoR) and Definition of Done (DoD), which support the preparation and implementation of changes. However, their role in post-implementation monitoring is limited.

Post-deployment monitoring is mainly reactive, meaning that monitoring is typically carried out only in problem situations. Continuous or systematic monitoring has not been defined, and no timeframes have been set. Some development teams may have their own practices, but there is no organization-level guidance.

3. Roles and Responsibilities

Monitoring and evaluation of changes are primarily carried out by product development representatives, such as Product Owners, but participation is not systematically defined.

There is no top-down model or clearly assigned responsibilities, leading to ambiguity in role distribution. Responsibility allocation is attempted through RACI models, but their use is neither comprehensive nor systematic, leaving some responsibilities unclear, particularly in the multi-vendor environment.

In such an environment, clear responsibility allocation is crucial, yet in practice it remains partly ambiguous, complicating overall governance.

4. Monitoring and Evaluation Practices

Monitoring is mainly focused on problem situations, indicating a partially reactive operating model. Continuous or proactive monitoring has not been systematically defined at the organizational level.

The success of changes is not regularly evaluated in all cases. However, failed changes are handled through a Post-Implementation Review (PIR) process. In these cases, changes are reviewed together with the supplier, with the aim of identifying what could be done differently next time. The key principle is not to assign blame, but to support learning and continuous improvement.

At the organizational level, there is no unified model to guide monitoring and evaluation comprehensively, resulting in fragmented practices and limiting the ability to form an overall view.

5. Definition of Success and Failure

The definition of success has not been clearly established within the organization, and the interviewee had not encountered a unified model for it. In practice,

evaluation is indirectly linked to costs and time, meaning that development costs and implementation duration act as indicators of success.

However, the evaluation is primarily focused on the technical perspective, i.e., whether the change has been implemented without major disruptions. Systematic evaluation of business value has been identified as a development area and is not currently carried out consistently.

6. Metrics and Evaluation Methods

Based on the interview, the organization currently lacks clear or unified metrics for evaluating the success of changes. The absence of measurement practices was identified as a significant development need.

The interview highlighted the need to develop a KPI-based measurement framework to enable more systematic evaluation of change impacts. However, such a framework was seen as case-specific, meaning that appropriate metrics would be selected individually for each change.

Potential metrics identified include cost savings, implementation time, customer satisfaction, user experience, and the satisfaction of internal support functions. This suggests that, in addition to technical aspects, service quality and business value should also be considered in measurement.

7. Impact of Multi-Vendor Environment

The multi-vendor environment significantly affects the monitoring and evaluation of changes. The large number of suppliers and dependencies between systems make overall governance challenging.

A key challenge is understanding the impact of changes across different systems, as architectural documentation is not up to date. Additionally, there are no unified practices or metrics across suppliers, increasing fragmentation.

The lack of common operating models reduces transparency and makes it difficult to form a comprehensive overview.

8. Learning and Development

Failed changes are handled inconsistently. In infrastructure-related work, practices are more clearly defined, whereas development teams operate more variably.

In some cases, written reports are required for failed changes, but systematic post-evaluation is not an established practice.

The documentation and utilization of lessons learned remain partly unclear, even though the goal is to avoid repeating the same mistakes. Overall, learning is not systematic but rather case-specific.

9. Development Needs and Future

The current state is clearly described as inadequate, and no area is functioning particularly well. The main development needs include the lack of a unified process, clearly defined roles, and consistent metrics.

A key direction for development is the creation of a unified operating model and the improvement of measurement practices. In particular, there is a strong emphasis on data-driven management and improving overall visibility.

Additionally, better transparency and supporting tools, such as dashboards, are needed to enhance change monitoring. Measuring business value is considered important, but its implementation is seen as challenging and requiring extensive collaboration across different roles.

Appendix 7: Key Interview Responses

The data is presented in Finnish as it reflects the original interview responses.

Key Interview Responses.xlsx