ITIL 4

Direct, Plan and Improve

ITIL Foundation recap

The key components of the ITIL 4 framework are the ITIL service value system (SVS) and the four dimensions model.

The ITIL service value system

The ITIL SVS represents how the various components and activities of the organization work together to facilitate value creation through IT-enabled services. The core components of the ITIL SVS are:

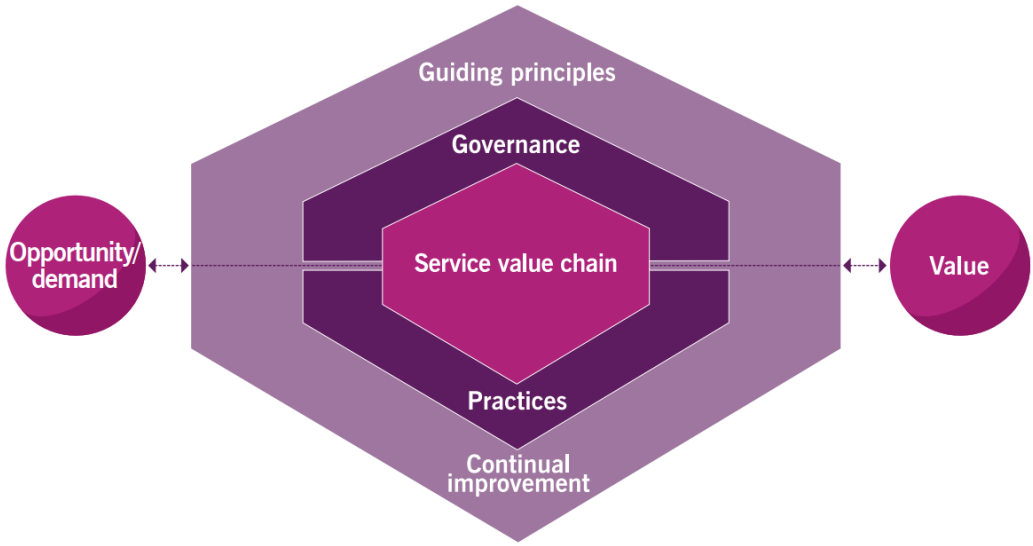
ITIL service value chain

ITIL practices

ITIL guiding principles

Governance

Continual improvement



The ITIL service value chain

The central element of the SVS is the service value chain, an operating model which outlines the key activities required to respond to demand and facilitate value realization through the creation and management of products and services. The ITIL service value chain includes six value chain activities which lead to the creation of products and services and, in turn, value. The activities are:

plan

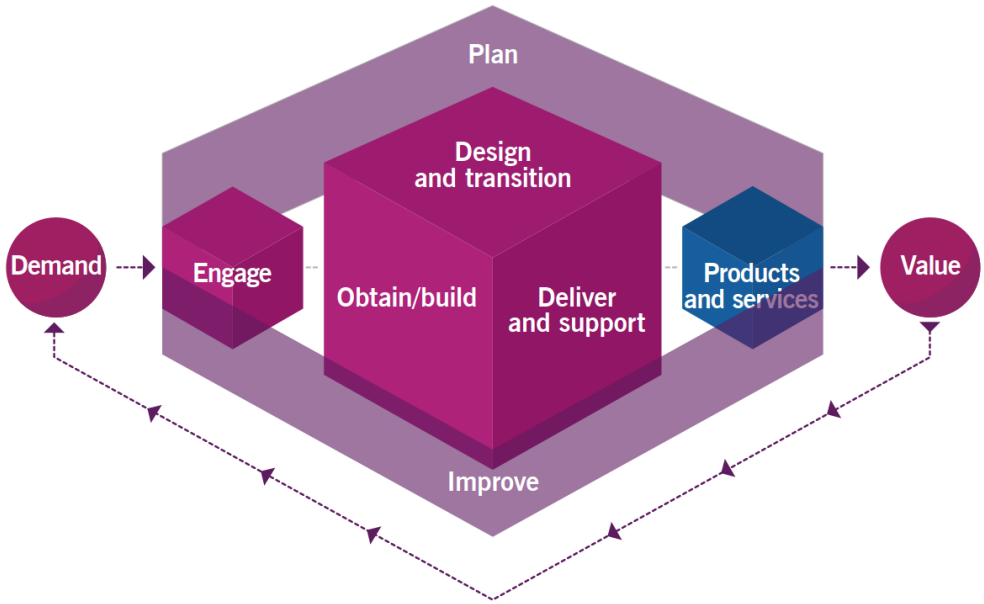
improve

engage

design and transition

obtain/build

deliver and support.



The ITIL practices

Practices are sets of organizational resources designed for performing work or accomplishing an objective. The ITIL SVS includes 14 general management practices, 17 service management practices, and three technical management practices.

General management practices	Service management practices	Technical management practices
Architecture management	Availability management	Deployment management
Continual improvement	Business analysis	Infrastructure and platform management
Information security management	Capacity and performance management	Software development and management
Knowledge management	Change enablement	
Measurement and reporting	Incident management	
Organizational change management	IT asset management	
Portfolio management	Monitoring and event management	
Project management	Problem management	
Relationship management	Release management	
Risk management	Service catalogue management	
Service financial management	Service configuration management	
Strategy management	Service continuity management	
Supplier management	Service design	
Workforce and talent management	Service desk	
	Service level management	
	Service request management	
	Service validation and testing	

The ITIL guiding principles

The ITIL guiding principles are recommendations that can guide an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure.

The seven ITIL guiding principles are:

Focus on value Everything that the organization does needs to map, directly or indirectly, to value for the stakeholders.

Start where you are Do not start from scratch and build something new without considering what is already available to be leveraged.

Progress iteratively with feedback Do not attempt to do everything at once.

Collaborate and promote visibility Working together across boundaries produces results that have greater buy-in, more relevance to objectives, and increased likelihood of long-term success.

Think and work holistically No service, or element used to provide a service, stands alone.

Keep it simple and practical If a process, service, action, or metric fails to provide value or produce a useful outcome, eliminate it.

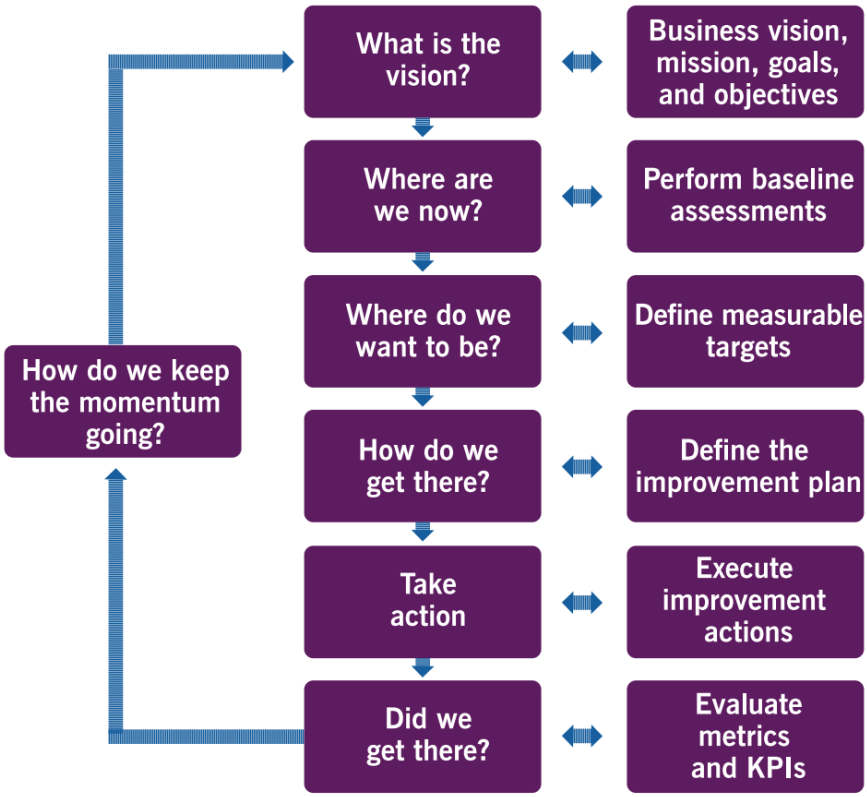
Optimize and automate Resources of all types, particularly HR, should be used to their best effect.

Governance

Governance is the means by which an organization is directed and controlled. The role and position of governance in the ITIL SVS will vary depending on how the SVS is applied in an organization.

Continual improvement

Continual improvement is a recurring organizational activity performed at all levels to ensure that an organization's performance continually meets stakeholders' expectations. ITIL 4 supports continual improvement with the ITIL continual improvement model.



The four dimensions model

To support a holistic approach to service management, ITIL defines four dimensions that collectively are critical to the effective and efficient facilitation of value for customers and other stakeholders in the form of products and services.

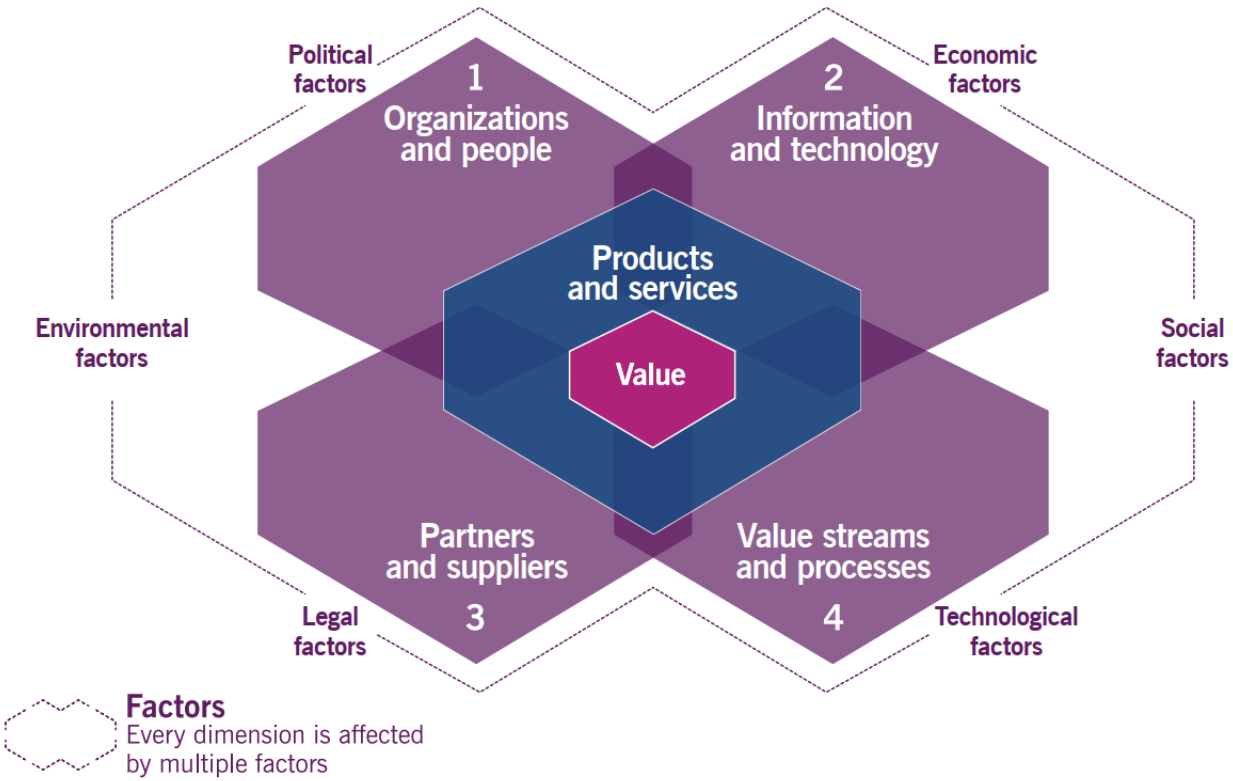
organizations and people

information and technology

partners and suppliers

value streams and processes.

The four dimensions represent perspectives which are relevant to the whole SVS, including the entirety of the service value chain and all ITIL practices. The four dimensions are constrained or influenced by several external factors that are often beyond the control of the SVS.



1. Introduction

ITIL4 Direct, Plan and Improve is part of the ITIL4 suite, the latest evolution of the most widely adopted guidance for IT and service management. It was written for those with a foundational knowledge of the ITIL4 guidance who want to develop their understanding of essential principles and techniques.

During the development of ITIL4, we found that, although some topics are specialist in nature, others are valuable to all practitioners. Regardless of their organizational role, everyone has the authority to direct something, even if that authority is limited to personal direction. Everyone needs to plan. And everyone should be contributing to, if not leading, improvement.

The effective use of this publication relies on a good understanding of the nature of its key concepts of direction, planning, and improvement, along with others. The principles, methods, and techniques that can be universally used to direct, plan, and improve are explored and explained. Tools and templates for implementing this guidance are also included.

1.1. Why direction, planning, and improvement matter

When multiple people are involved in business activities, coordination and collaboration are crucial. Because organizations are usually hierarchical, direction is often provided from the top down. Unless the objectives and actions of groups at different levels of the organization are planned and aligned, their desired outcomes are unlikely to be achieved. Even if they are achieved, poor coordination often results in waste, including missteps, restarts, and rework.

Planning creates a shared understanding of how work will be organized and managed, allowing contributors to understand their roles, and to coordinate and collaborate efficiently and effectively.

Finally, improvement is a critical component of any successful organization. Identifying and acting upon improvement opportunities ensures that the organization will grow and remain successful and competitive over time.

1.1.1. Scope of control

Definition: Scope of control

The area(s) or activities over which a person has the authority to direct the actions of others or define the required outcomes.

Everyone has a scope of control, which is distinct from their scope of influence. A corporate leader’s authority is typically defined as part of their role and acknowledged by those around them. An employee in another role may have a scope of control limited to a few direct reports. Others have scopes of control limited to themselves and their own activities.

Regardless of their official scope of control, everyone can exert influence. The difference between what a person can control and what they would like to change indicates the need for creative influence. Even if the difference does not exist, it is often more effective to influence and inspire cooperation, rather than command it.

1.2 Direction

Definition: Directing

Leading, conducting, or guiding someone, or ordering something. This includes setting and communicating the vision, purpose, objectives, and guiding principles for an organization or team. It may also include leading or guiding the organization or team towards its objectives.

A person who directs people or things may have been given that authority formally or informally. Clear direction clarifies expected outcomes and defines the appropriate guiding principles. Good direction provides enough clarity to enable team members to proceed, while leaving enough flexibility for each of them to make a unique, creative contribution.

When giving direction, it is important to explain the mission, respect the abilities of those being directed, and ensure two-way communication. Any changes should be communicated so that team members understand what they are, why they are necessary, and whether any ways of working need to be altered to align with them.

1.2.1 Mechanisms for direction

There are many ways in which organizations can provide direction. One example is the common construct of ‘evaluate, direct, and monitor’. Organizations using this construct define direction and behaviours based on their agreed objectives, and then monitor performance against that direction.

1.2.1.1 Vision and mission

Direction can be received from an organization’s vision and mission statements.

Definition: Vision

A defined aspiration of what an organization would like to become in the future.

By articulating a vision, the organization gives its employees an image of the future, which helps them to maintain their enthusiasm and clarifies why the organization acts in the way it does.

Definition: Mission

A short but complete description of the overall purpose and intentions of an organization.

Each team can focus its efforts and creativity on achieving a defined mission. Organizations usually create formal statements to articulate their missions, and may publicize these statements externally.

The activities necessary to fulfil a mission should be defined, as should specific initiatives to achieve them.

1.2.1.2 Policies and guidelines

Policies and guidelines are also mechanisms for direction. Policies are stronger forms of

guidance, but guidelines leave more scope for creativity. Deciding which is appropriate in different contexts is typically part of the organizational governance function.

Definition: Policy

Formally documented management expectations and intentions, used to direct decisions and activities.

Policies direct decisions and behaviour. In most organizations, failing to follow company policies results in disciplinary action, which can include termination of employment.

Policies are typically implemented to avoid an undesirable outcome or to result in something desirable. For example, if an organization gets financial rewards when employees pay travel expenses on a corporate credit card, it may implement a policy that expenses must be paid in that manner in order to be reimbursed. Specific exceptions, such as reimbursing tips paid in cash, make such a policy more practical.

People may establish policies that relate specifically to areas within their scope of control, but these must align with organization-wide policies. Policies must not conflict with one another, as it is unreasonable to ask people to follow conflicting directives.

Definition: Guideline

A recommended practice that allows some discretion in its interpretation, implementation, or use.

As the name implies, guidelines guide employees as they perform activities or make decisions. They provide general recommendations on how to act in different situations or how to do something to achieve the desired results. Guidelines are sometimes used where no specific policy applies, or where the organization does not aim to dictate behaviour but rather to assist people who are unsure what to do.

1.2.1.3 Risks and controls

There is always risk associated with an organization’s activity; the primary risk is usually that its objectives will not be achieved.

Definition: Risk

A possible event that could cause harm or loss, or make it more difficult to achieve objectives. Can also be defined as uncertainty of outcome and can be used in the context of measuring the probability of positive outcomes as well as negative outcomes.

In the context of ITIL4 Direct, Plan and Improve, understanding risk is essential to maximizing results while minimizing harm or loss. Risks should be considered for many reasons, including the following:

- If risks are not properly understood, teams could be directed to undertake projects that are likely to fail or have little chance of success.
- If team members notice risks but do not see evidence of preventive actions, they may lose confidence in their project, making failure more likely.
- If plans do not include the active management of risks, delays, rework, or project failure are more likely.

- Improvement is only possible when the current state is understood. This includes understanding the risks associated with creating the desired improvement.

Once risks are understood, they need to be managed. A key method for managing some kinds of risk is the use of controls.

Definition: Control

The means of managing a risk, ensuring that a business objective is achieved, or that a process is followed.

Controls are countermeasures or safeguards that provide reasonable assurance that objectives will be achieved and undesired events will be either prevented or detected and corrected. Controls fall into three broad categories:

- organizational/procedural controls (policies, organization, ownership, training, processes)
- logical/technical controls (required fields, scripting, automated workflows)
- physical controls (an electronic badge entry system, a metered intake valve)

Controls require evidence of their effectiveness. Without evidence, the organization cannot evaluate whether the control is reducing risk or assuring success.

Controls are also part of direction; they are used to enforce selected directives. The evidence of a control's effectiveness can demonstrate that directives have been followed. For example, if an organization directs that its field service team will only support customers with a signed contract, it might put a control on a customer's service request records, making it mandatory to have a link to an active service contract. Without this link, a field service visit cannot be scheduled. In this example, the control is not a directive, but rather results from the directive.

1.2.2 Successful direction

Successful direction ensures that everyone in an organization has a shared understanding of its mission and objectives, and that they understand what is expected of them in relation to achieving those objectives. The success of direction at all levels can then be viewed as the degree to which:

- each group understands its objectives
- each individual understands their expected contribution
- these groups and individuals act in accordance with the direction they have been given.

Success also depends on the team members' abilities to take direction. If they are not committed to agreed, shared objectives, their actions are likely to be fragmented and ineffective, and progress will be sporadic. Team members must ask questions if they do not understand or agree with objectives or proposed work methods.

Their input may prevent a mistake or vocalize concerns shared by others. However, once a plan has been defined and the leader is directing the team to move forward, team members should accept this direction and put their effort towards producing results. Open communication and a positive, collaborative attitude are traits seen in people who are willing to accept direction while still allowing the team to benefit from their experience and judgement.

1.3 Planning

When an organization (or a person) has a direction and an objective, it must decide how it will progress towards it. The organization needs a plan. Plans are always important, but particularly so in large organizations because plans improve coordination. In every organization, plans help to avoid waste and reduce risk.

Planning is arranging a method of achieving an end, or creating a detailed programme of action. Various problems can occur when organizations plan too much or too little, including:

- planning every detail of an initiative in advance, to the extent that actions are delayed
- believing every possible contingency has been planned for, which can lead to difficulties in responding when the unexpected does occur
- beginning work without effective planning, which can result in rework and wasted efforts due to mistakes that could have been avoided.

None of these extremes represents good practice. The type and extent of planning should be selected based on the type of effort being planned. Planning is useful because it gives people a clear and ordered set of actions to undertake, but plans must be continually re-evaluated and adjusted as work proceeds. Planning is an iterative activity as well as a preparatory one.

1.3.1 Planning at multiple levels

Organizations commonly plan on multiple levels. These levels are, at a minimum, strategic, tactical, and operational. These three levels should be closely linked to each other and to the organizational objectives.

1.3.1.1 Strategy and strategic planning

Definition: Strategy

A broad approach or course of action defined by an organization for achieving its objectives.

Strategies may be defined at multiple levels, but, in organizations, they must cascade logically from the overall organizational strategy. They must also be tied to the achievement of objectives.

For example, a hotel group with a vision of being the global leader in business and leisure lodging services may adopt a strategy to stabilize its position in the American and European markets and then move aggressively into the Asia–Pacific market. This is a broad approach to achieving its objective

1.3.1.2 Tactics and tactical planning

Tactics are the specific methods by which a strategy is enacted.

If, after a period of time, a tactic is determined to be unsuccessful in enacting a strategy, it may need to be altered or abandoned.

Following on from the previous example: to act on its stabilization strategy, the hotel group

might use tactics to increase repeat bookings, such as introducing a guest satisfaction programme, analysing its customer base in target regions, and revising its loyalty programme.

To drive efficient tactical planning, organizations typically develop standardized methods of planning projects and initiatives, sometimes using templates or frameworks. Waterfall-style project plans are different from Agile project plans. Complex programmes have plans within plans, factoring in dependencies, resourcing, costs, and risks.

1.3.1.3 Operations and operational planning

All work at an organization's operational level is performed in service of its established objectives, and in alignment with its strategy and tactics.

Definition: Operation

The routine running and management of an activity, product, service, or other configuration item.

Following on from the previous example again: the hotel group might initiate its guest satisfaction programme tactic by performing satisfaction surveys, collecting complaint information, analysing data, selecting areas to improve, creating a marketing campaign, and so on.

Depending on the environment's complexity, operations may include predictable, repeating, well-documented work, but also managing unusual situations. Operational procedures should be well known, as staff are typically expected to follow them. Sometimes, specialists involved in an activity should define unique courses of action. Either way, it is common to have agreed methods and techniques for operational activities.

1.3.1.4 Methods

A method is a way, technique, or process for doing something. Methods are structured and systematic.

One or more methods may be developed for structured and systematic work. When more than one method is available for a task, the person performing it should either follow the direction of their organization or decide for themselves which method to use.

1.3.2 Successful planning

Planning is an attempt to increase order and reduce risk. It is important to remember, however, that risk cannot be eliminated entirely, no matter how much planning is done, and too much planning can limit creativity and responsiveness. Indeed, some risk can be positive, such as the risk that more people will use a service than it was originally designed to accommodate.

Just as with direction, planning must always be aligned with the relevant objectives. Decisions about the details of a plan will be easier to make if those doing the planning

remember why the action is being undertaken. If objectives are cascaded from the top down to the level at which the planning will be done, the alignment of actions and direction will be maintained. Successful planning results in clear, focused actions that proceed efficiently towards achieving the desired outcomes.

1.4 Improvement

It is extremely rare for a situation to involve a real beginning, one with nothing before it. Almost every activity in an organization can, therefore, be seen as an improvement activity.

Definition: Improvement

A deliberately introduced change that results in increased value for one or more stakeholders.

Improvement relies on comparison. Something can only be improved in comparison to another state. Our definition also implies that there is agreement on what constitutes 'better'. Finally, improvement means change.

Without changes to some aspect of the current state, there can be no change to outcomes.

1.4.1 Universal applicability of improvement

Any part of the ITIL service value system (SVS) can be improved. For a service provider, the improvement of services can be expected to be a central focus; but that could imply, among other things, an improvement in:

- service performance
- profitability
- adoption of the service by users.

When a desired improvement is identified, the organization should evaluate which changes are likely to instigate it. For example, a service provider wanting to improve profitability by reducing costs could reduce personnel costs or increase efficiency. These actions may require improving processes, or elements of the service value chain. Organizations should think and work holistically, understanding the potential impacts of their actions on the entire system before forging ahead.

1.4.2 Universal involvement in improvement

Continual improvement is everybody's responsibility. Everyone in an organization can contribute to continual improvement. This means that everyone should understand the role of improvement in the SVS, and the basics of planning and implementing improvements.

1.4.3 Successful improvement

The success of improvements can be measured from macro and micro perspectives.

From the macro perspective, success can be measured by the organization's commitment

to improvement. Evidence of this can be seen in how improvement initiatives are funded, contributed to, and supported. It is important to ask these questions:

- How frequently are lessons learned sought and acted upon?
- Is there a commitment to organizational learning?
- Is contributing to improvement included in job descriptions and performance evaluations?

From the micro perspective, success can be measured by looking at whether individuals initiate and contribute to improvement activities.

1.5 The role of measurement and reporting

Coordinated progression relies on a shared understanding of:

- historical performance
- current state performance
- the degree of achieved improvement from a previous state.

Measurement and reporting provide a means of objective quantification, so that everyone has the same information from which to make decisions. Measurement is the foundation of improvement activities of all kinds; it is used to objectively assess an organization's current state. Reporting at every level is used to communicate relevant information and create a shared, fact-based view of the area being reported on.

Measurement and reporting also provide predictive information that can influence planning for the future. However, they are not a substitute for critical thought; they are the beginning of good decision-making, not the end.

Metrics are useful tools for directing behaviour. They can provide objective targets and ways for a team to evaluate its progress towards a target state.

1.6 DPI of the ITIL SVS

1.6.1 Direction in the SVS

Direction comes from many parts of the ITIL SVS, but the governance component typically plays a particularly prominent role.

1.6.1.1 Governance, compliance, and management

Definition: Governance

The means by which an organization is directed and controlled.

Every organization is directed by a governing body: a person or group of people who are accountable at the highest level for its performance and compliance.

Governance includes the establishment of policies and the continual monitoring of their proper implementation by the governing body. Organizational governance evaluates, directs,

and monitors all of the organization's activities, including those of service management.

Definition: Compliance

Both the act and result of ensuring that a standard or set of guidelines is followed, or that proper, consistent accounting or other practices are being employed.

For governance to be effective, compliance with applicable laws and regulations must be ensured. Additionally, governance mechanisms are used to ensure compliance with other established policies.

Governance defines the scope of control for management throughout the organization.

Definition: Management

Coordinated activities to define, control, supervise, and improve something.

Good management should result in effective and efficient operational activity, confident and competent employees, and the achievement of defined objectives throughout the organization. Management as a general concept may be described as the application of skill or care in the conduct, control, or supervision of something.

One of the concerns of good management is the adherence to directions provided by the governing body, including compliance with policies, laws, and regulations. The term 'management' is also used to refer to people in management roles.

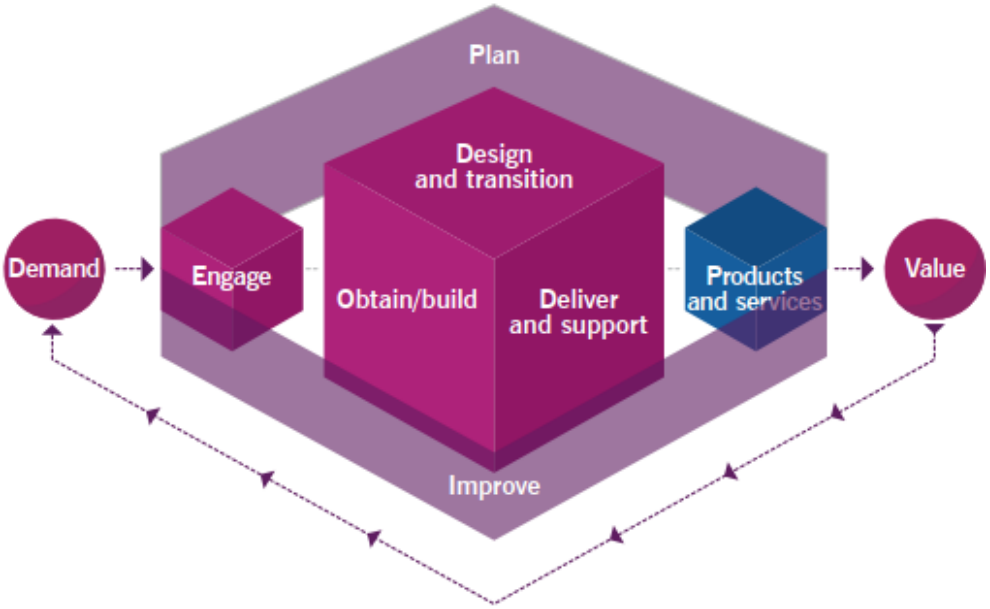
1.6.2 Planning in the SVS

The ITIL service value chain is an operating model that covers all the key activities required to effectively create, deliver, and manage products and services. Figure 1.1 shows the ITIL service value chain.

Definition: Operating model

A conceptual and/or visual representation of how an organization co-creates value with its customers and other stakeholders, as well as how the organization runs itself.

Defining an operating model allows organizations to examine their own complex structures and dynamics, promoting understanding and aiding planning and improvement. Operating models divide complex systems into more comprehensible sub-systems, so that they can be understood and managed more easily. Defining an operating model is an important part of strategic planning



Planning can be applied to, or take place in, any part of the SVS, but when it comes to planning the lifecycles of products and services, the plan value chain activity is key.

The plan value chain activity ensures a shared understanding of the vision, current status, and improvement direction for all four dimensions and all products and services across the organization.

The outputs of the plan activity include strategic, tactical, and operational plans.

1.6.3 Improvement in the SVS

Improvement is prominent in the SVS and the service value chain. Continual improvement and a continual improvement culture are essential to the provision of IT and digitally enabled services.

The improve value chain activity balances the plan activity. Through the improve activity, the service provider ensures that the lessons learned through operating the service value chain are transformed into improvement.

1.7 Applying the guiding principles

The ITIL guiding principles should be considered throughout direction, planning, and improvement. Details on the guiding principles include the following:

- Focus on value Because value is central to IT and service management, this principle is universally applicable to direction, planning, and improvement. Everyone in an organization plays a part in directing actions, at their own level and those below, towards initiatives that will create value. If they will not create enough value, plans will be altered. The fundamental aim of most improvements is creating or protecting value, and this encompasses many perspectives, including customers' and users' experiences.

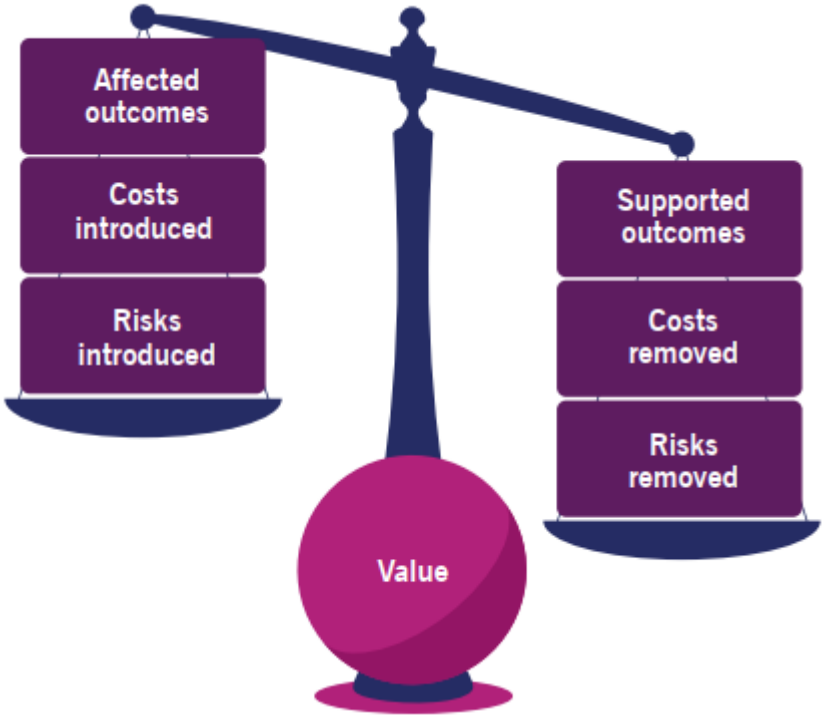
- Start where you are It is always helpful to start with an accurate view of the current state. People who are directed to change something that appears to be working are unlikely to be enthusiastic. When planning an improvement, validating what is already delivering value and focusing efforts on real improvement opportunities will prevent wasted effort.
- Progress iteratively with feedback Some leaders fail to ask for feedback at the right times and at the right levels. Through being open to iterative progress with ample feedback, progress can be sustained and participants can feel heard and valued.
- Collaborate and promote visibility Directions that are given alongside context allow people to make better decisions as they work, and to produce better results. People work better when they understand the scope of a plan and know they are actively engaged in moving it forward.
- Think and work holistically The ITIL SVS has many interactions and dependencies. If one element is changed, other areas are likely to be affected. It is important to consider how your activities overlap with others.
- Keep it simple and practical Complex directions and plans are difficult to follow. Streamline them wherever possible.
- Optimize and automate Every part of the SVS should be optimized to function as efficiently as possible. Bureaucratic governance practices may give direction that is impractical to follow, wasting time and effort. Complex plans are difficult to implement. Improvements are often targeted at optimizing the ways we work or provision services.

1.8 Value, outcomes, costs, and risks in direct, plan, and improve

Achieving desired outcomes requires resources, and therefore costs, and is often associated with risk. Service providers help consumers to achieve outcomes and, in doing so, adopt some of the associated risks and costs. However, service relationships can introduce new risks and costs and can negatively affect some of the desired outcomes, while supporting others. These concepts are reflected in many aspects of direction, planning, and improvement. For example, an improvement objective may be to reduce risks or eliminate unnecessary costs.

When an organization has defined its mission and strategy, it will determine the direction of its service portfolio. Therefore a shift in the strategy may cause a corresponding shift in the portfolio.

An organization may, however, choose to accept additional risk, increased costs, or diminished outcomes if this will create the possibility of increased value as it chooses to measure it. For example, pursuing new and unproven technologies may introduce significantly greater risk, but this may be acceptable if the potential rewards are correspondingly great.



1.9 Direction, planning, and improvement for everyone

Now that we have established the key principles underlying this publication, it should be clear that everyone is involved in directing, planning, and improving the areas in their scope of control. You should consider how the concepts and methods in this publication can apply to you and your work, and how you can become a more informed and capable contributor.

2 Strategy and direction

Success in service provisioning requires coordinated action towards agreed objectives. This section explores the creation and management of a service provider's strategy, with the aim of first establishing a basic understanding of the strategy's nature, scope, and relationship with direction, and then providing guidance on directing activities that align with the strategy.

Most of the concepts and methods described in this section can be applied effectively in all areas of the organization, as long as they are within the relevant scope of control and are aligned with broader directives.

2.1 Strategy management

Strategy management includes:

- specifying the organization's mission, vision, and objectives
- developing policies and plans which are designed to achieve the mission and objectives
- allocating resources to implement policies and plans.

Through strategy management, organizations integrate the activities of their capabilities and functional areas in order to achieve long-term objectives. Strategy performance management tools are often used to evaluate financial and non-financial performance and progress towards long-term objectives.

The purpose of the strategy management practice is to formulate the organization's goals, adopt effective courses of action, and allocate any resources necessary for achieving those goals. This practice establishes the organization's direction, focuses effort, clarifies the organization's priorities, and provides guidance in response to the environment.

Whenever a service provider organization is established, it develops a business model by leveraging the SVS. The business model should reflect what consumers want, how they want it to be delivered, and how the organization can provide satisfying products and services.

Strategic thought and action can be difficult for the following reasons:

- Defining and implementing strategies involves complex issues, such as organizational impact, uncertainty, and conflicting priorities and objectives. Experience and codes of practice cannot always resolve these issues.
- The analysis and estimation of probabilities to support strategic thinking often involves complex tools, environments, models, and techniques to analyse current patterns, predict trends, and estimate the probability and impact of each trend manifesting.
- Focusing on the four dimensions, SVS, service value chain, and all their many interactions takes dedicated attention. A strategy' s scope can be intimidating, but these factors must be considered.

Strategists navigating complexity and uncertainty can leverage the ITIL guiding principles to clarify and reduce any challenges that arise.

A well-defined service provider strategy will make the service provider uniquely valuable to service consumers. Delivering and maintaining this unique value proposition should then become a key consideration in tactical and operational decisions.

Service providers should not expect or rely on service consumers' loyalty. Consumers' perspectives and needs may change due to factors that the service provider cannot control. A strategic view of service management means investing in relationships with service consumers, and accepting and preparing for the uncertainties of those relationships.

2.1.1 Strategic alignment

The strategy management practice usually supports the organization's long-term objectives. Organizational strategies are typically devised by an organization's CEO, approved by its governing body, and implemented by its senior executives.

A service provider that aims to establish a cooperative relationship or partnership with its service consumers should understand the service consumer organizations' visions and strategies. It may be useful to align the service provider's strategy with those of the service consumers. In partnerships, partners work together to ensure strategic alignment or adopt a common strategy. One example of this can be the alignment of an internal IT department's strategy with that of the parent organization.

Organizations must balance a commitment to a single strategy with regular re-assessments to ensure that the strategy remains relevant. If a service provider's strategy and the resulting directives are too static, the organization might endanger its viability as a business. However, if the strategy changes too often, the organization may struggle to adapt and overcome the stress of constantly abandoning current efforts.

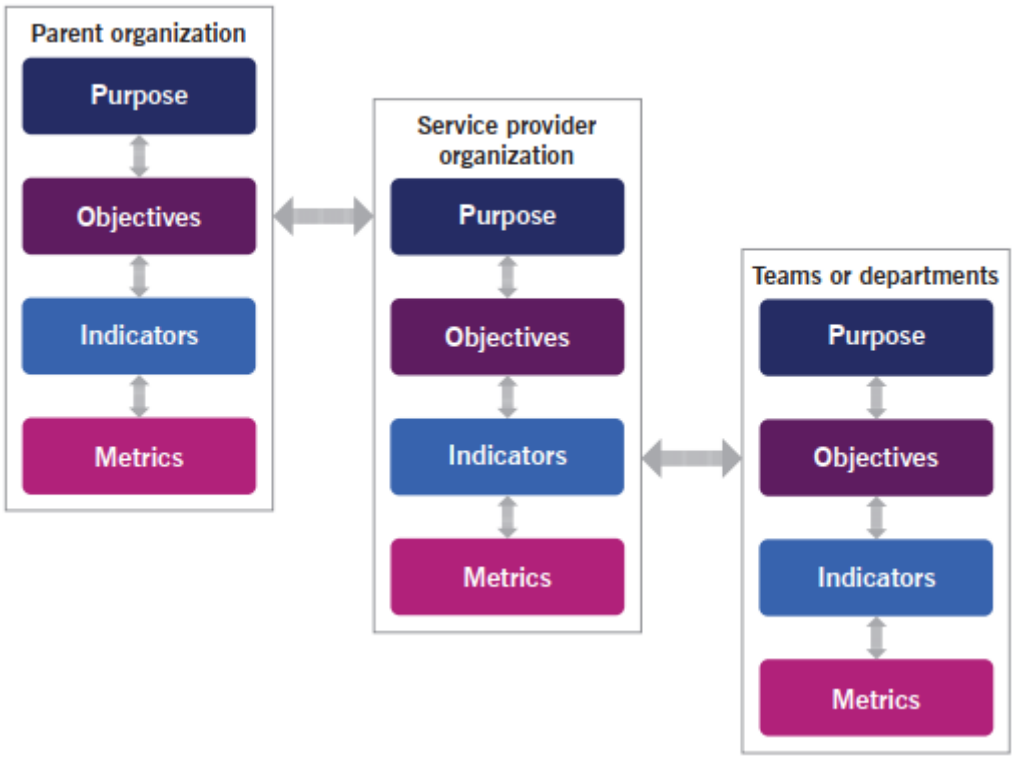
2.1.2 Identifying the relevant scope of control

Strategies can only be defined within the relevant scope of control. For example, an IT department cannot define an organizational strategy; it can only align with the organizational strategy and define the IT strategy accordingly.

However, people can influence strategies outside of their scope of control. For example, if an IT department identifies new development opportunities in its scope, those opportunities might enable the organization to pursue previously unrealistic strategies.

2.1.3 Cascading objectives

When the organization's mission and strategy are understood, objectives can cascade from them, translating the strategy from one organizational level to the next. This ensures the organization's strategy, tactics, and operations are aligned, and allows the reporting of accomplishments through feedback loops. Senior leaders can, therefore, monitor performance and make appropriate business decisions.



Just as objectives and plans cascade through an organization, so do the requirements for the resources needed to achieve them. Requirements may relate to any of the four dimensions of service management, as illustrated in Figure 2.2. The achievement of a strategy relies on attention to all four dimensions of service management.

2.2 Defining the structures and methods used to direct behaviours and make decisions

Decisions in an organization must align with its mission and strategy. Organizations often use many different structures and methods for decision-making and directing activity and behaviours. This section will explore the governance structures involved in decision-making, and in placing them at the right level.

2.2.1 Governance structures used for decision-making

Internal control regimes exist in all major economies; they protect organizations' assets, earning capacities, and reputations. Corporate governance facilitates effective, entrepreneurial, and prudent management that facilitates long-term success.

Table 2.1 Key governance structures and their roles

Governance structure	Role in governance
Board of directors	Responsible for their organization's governance. Specific responsibilities include: ● setting strategic objectives ● providing the leadership to implement strategy ● supervising management ● reporting to shareholders.
Shareholders	Responsible for appointing directors and auditors to ensure effective governance
Audit committee	Responsible for supporting the board of directors by providing an independent assessment of management performance and conformance

Organizations establish internal controls in alignment with the directives of governance structures in multiple ways, including:

- risk management
- financial controls
- operational controls
- compliance controls.

The board of directors is responsible for determining the nature and extent of any significant risks it accepts when pursuing strategic objectives. The board should maintain risk management systems and internal control systems and review their effectiveness annually, at least.

2.2.1.1 Governance of the service provider

No single department can govern itself, unless that authority has been delegated by the governing body. When a service provider is part of a larger organization, the parent organization's governing body has authority over it.

Some organizations delegate authority and perform certain governance activities at lower levels, based on each level's scope of control. In these cases, the organization's governing body oversees the delegated activities to ensure alignment with the organization's objectives.

The ITIL SVS can be applied to an organization as a whole, or to one or more of its departments. When the SVS is applied to a department, it should be understood that the governance component comes from the parent organization.

Governing bodies do not function in a vacuum. They must consider external factors, such as regulations and legislation. For example, legislation known as Sarbanes–Oxley applies to public companies in the United States. The main purpose of Sarbanes–Oxley is to ensure public companies issue informative and accurate financial statements. The need to comply with such legislation significantly influences governing bodies and the direction they give to organizations.

2.2.2 Placing decision-making at the right level

Governance decisions are made at the highest levels of an organization, but most decisions should be made by other teams or areas within it. As much authority as possible should be delegated, so long as the required outcomes are consistently produced.

When everyone has a defined role and knows their scope of control, they can make decisions within that scope and drive productive action. If their scope of control is too small, decisions will be forced upwards, slowing work and overloading decision-makers. People without the authority to make decisions that should be within their scope may feel undervalued, which can lead to low productivity, an unwillingness to accept new responsibilities, and destructive behaviours.

One way to assess the assignment of decision-making authority is to weigh risk. Decisions that present significant risk should be made via mechanisms that provide more structure and review. Decisions that present little risk should be performed, as far as possible, by those performing the related work. This strategy avoids unnecessary delay and assures employees that they are trusted. A large proportion of decisions can be placed at the operational level when risk is moderated with training, automation, policies, and guidelines.

2.2.3 The impacts of governance on direction, planning, and improvement

In the context of direction, planning, and improvement, governance's impacts are clear. Direction from a governing body will dictate the parameters of directions issued throughout the organization. If a direction given to an individual contradicts the broader direction from the governing body, the individual will struggle. Employees cannot follow directives that violate broader instructions, but they also cannot ignore supervisors' instructions. Organizations must communicate about and oversee their governance decisions carefully and fairly.

Governance decisions and directives are critical inputs to all planning. Often, plans are devised for the express purpose of ensuring compliance or alignment with the strategic objectives defined by governing bodies. Such plans must be made with a good understanding of what would constitute a successful outcome. When the organization issues new directives or defines new strategies, current plans should be reviewed for continued alignment.

Finally, alignment with governance directives is an important element of every improvement opportunity. Improving practices, associated processes, and value streams increases the organization's compliance with directives. Every element of the SVS contributes to achieving strategic objectives and is therefore subject to continual improvement.

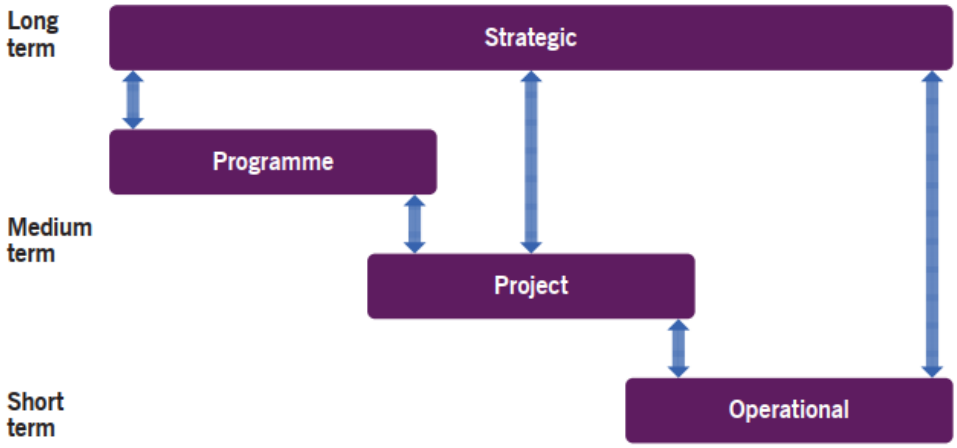
2.3 The role of risk management in direction, planning, and improvement

Risk exists everywhere; it must be actively managed to ensure that the organization's objectives can be achieved. If direction is given without considering risks, the achievement of the associated objective will be suspect. Plans that do not note and mitigate risks are incomplete. Improvements are unlikely to succeed if the risks are unknown and not managed.

2.3.1 Role of risk and risk management in direction

The risk management practice should be continually applied and information about risks should be circulated when making decisions. Decisions about risks will vary depending on whether the risk relates to long-, medium-, or short-term organizational objectives.

- Long-term objectives are addressed through strategic decisions and set the context for decision-making elsewhere in the organization. This may be done by defining risk appetite and risk thresholds. Risks associated with strategic decisions may not become apparent for weeks or months. It is, therefore, critical to evaluate and review these decisions and the associated risks regularly. The portfolio management practice is key when determining risks to products and services, projects, and customers, and when exploring means to mitigate those risks.
- Medium-term objectives are usually reflected in the project portfolio, and address the programmes and projects authorized to engender business change. Decisions relating to medium-term objectives are narrower in scope than those relating to strategy, particularly in terms of timeframe and fiscal responsibilities. Risks to medium-term objectives may become evident faster, which allows them to be managed sooner.
- Short-term objectives are addressed at the operational level. However, decisions about risk at this level must also support the achievement of long- and medium-term objectives.



Everyone is responsible for participating in and contributing to risk management, because there are potential risks in everyone's actions. Actively managing risks should be habitual. However, an organization should not place blame if its decision-makers misstep. Misjudgement is an opportunity for improvement, not blame.

Organizations should provide guidance, direction, and support so that people know which risks they can accept and which decisions must be escalated.

2.3.2 The role of risk and risk management in planning and improvement

All plans must consider the associated risks and how those risks can be managed. If a plan's risks are too great, an alternative plan may need to be adopted. Every element of a plan must be considered, and mitigation plans devised for risks that cannot be eliminated. Additionally, when a plan is underway, risks must be actively managed until the point of completion.

These risk management requirements also apply to improvement activities. Improvements require change: change involves risk. When proposing action, the risks of proceeding should be considered, but so should the risks of inaction, which are equally relevant. For example, if an organization chooses not to upgrade an application to avoid a risk of instability, it may be embracing a greater risk: no longer being supported by the application's vendor.

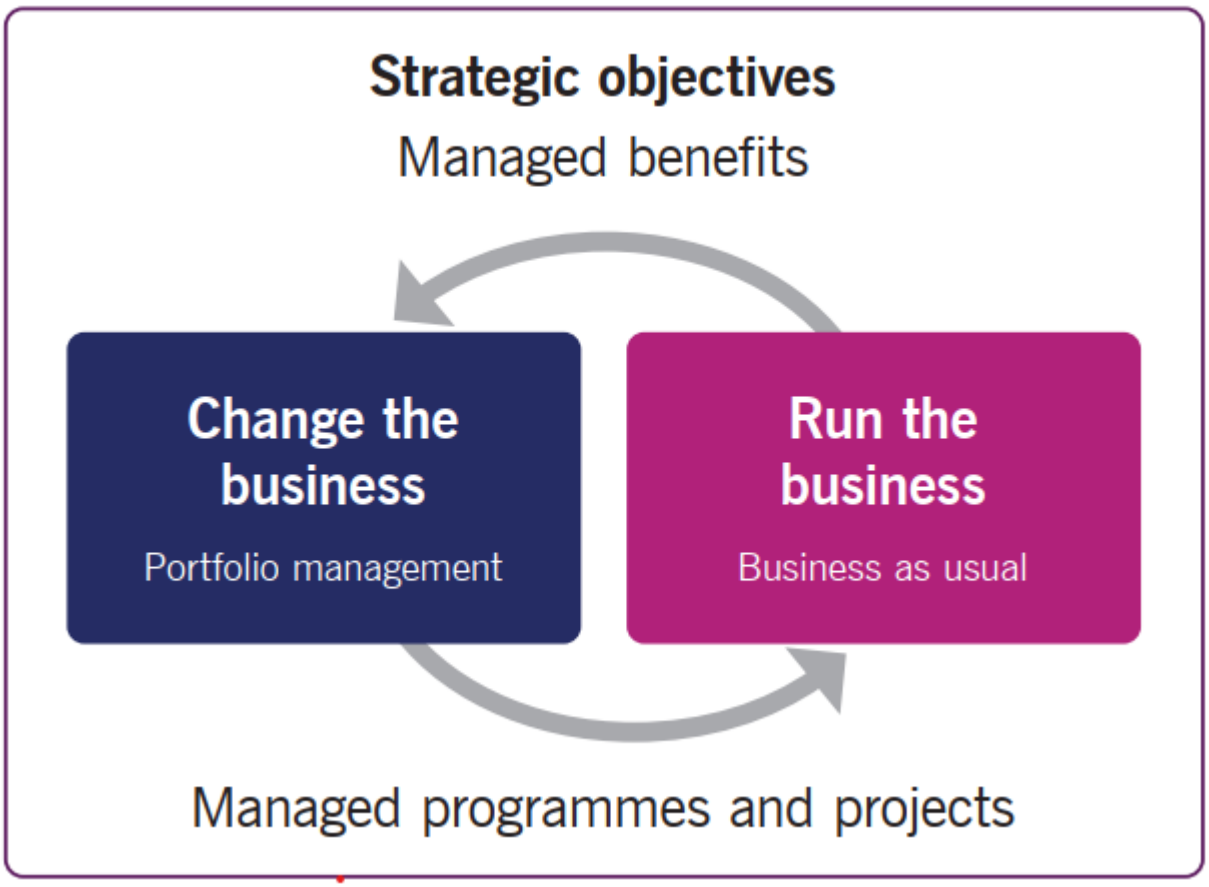
2.4 Portfolio management: a key decision-making practice

Organizations typically invest huge amounts to act on their strategies. This investment is reflected in the portfolios that they develop and maintain. To deliver business objectives, an organization undertakes projects, which combine to form its project portfolio. Service provider organizations' portfolios, in particular, are key artefacts which articulate their overall strategy.

The purpose of the portfolio management practice is to ensure that the organization has the right mix of programmes, projects, products, and services to execute its strategy within its funding and resource constraints.

An organization may maintain other portfolios, such as programme, application, or customer portfolios.

Developing and maintaining any portfolio requires decisions on how the organization's finite resources, including money, people, infrastructure, and facilities, can be deployed to the best effect, considering both the operational and strategic priorities. Existing product, service, project, programme, and customer portfolios that do not align with the organization's strategy may have to be realigned or terminated. Current, ongoing programmes and projects may also be suspended while those that support the strategy are delivered.



Programmes and projects are undertaken to deliver change in certain areas of the organization, but engagement with the wider business is vital for success. For a service provider, projects and programmes help to position products and services in the market, and to deploy or change the means by which they are delivered. Consequentially, changes to an organization's service portfolio often cause changes to project and/or programme portfolios.

2.4.1 Service portfolios

Traditionally, a service portfolio improves the visibility of the services in which an organization has invested, including those that:

- have been proposed or chartered
- are available to be delivered
- are actively being delivered
- have been retired.

Service portfolio decisions reflect the service provider's values: its aspirations, overall development strategy, and understanding of its consumers.

Although the financial case may not support them, some service portfolio decisions are made to support a critical need. Such services must be closely monitored and their value consistently measured and tested. Services that are costly to build and deliver can be sufficiently valuable to justify the investment when they are first conceived of, but this may change over time.

2.4.2 Prioritizing and optimizing portfolio decisions and communications

The objective of portfolio prioritization and optimization is to categorize items within a portfolio based on agreed criteria. The most common criteria are financial, such as cost and value; others may include strategic alignment, risk, and complexity.

Prioritizing a portfolio is crucial when determining where investments will add the most value. Failure to prioritize often causes every project to attempt delivery simultaneously with the same resources, provoking chaos and significantly increasing the risk of failure. Similar risks arise from failing to prioritize portfolio changes because of resource constraints. Optimizing portfolios may involve increasing resource capacity or reducing commitments.

2.4.2.1 Building an approach to portfolio prioritization

Organizations should create prioritization frameworks reflecting their values and strategic objectives, which should be reviewed annually. The use of a framework makes portfolio prioritization decisions less subjective and aids consistency. The defined technique for prioritizing and optimizing portfolios should be validated by those with the authority to make portfolio decisions, and senior management should ensure that it makes sense for the organization.

Prioritization decisions typically involve factors such as risk, cost of delay, potential value to the organization, effort required, and degree of strategic alignment. Each element of the framework should be weighted to reflect how the organization is affected by these factors, and these weightings should be determined through discussions with senior and strategy management.

Projects and services are assessed against the prioritization framework to determine their relative priorities. Sometimes, the priorities of strategic objectives and the current investments are mismatched. When this occurs, it provides an opportunity to optimize the portfolios by redirecting investment.

The portfolio management practice guide provides detail on prioritization frameworks and techniques.

2.4.2.2 Communicating about portfolios and portfolio decisions

As with every important aspect of an organization’s SVS, portfolios and portfolio-related decisions should be communicated to relevant stakeholders. The SVS should develop a communication plan containing stakeholder information and details of education or awareness activities, and who should attend them. A good communication plan will also define how to ensure that the message has been received and understood; methods include surveys, interviews, and sessions in which stakeholders articulate their understanding of the strategy and its impacts.

2.4.3 Building, communicating, and advocating for a business case

Definition: Business case

A justification for the expenditure of organizational resources, providing information about costs, benefits, options, risks, and issues.

Like any investment decision, every new product, service, or modification should have a formally agreed business case.

A business case is a decision support and planning tool that projects the likely consequences of a business action. Business cases help organizations compare proposed portfolio changes and their associated expenditures.

2.4.3.1 Building a business case

Business cases vary in content and structure. Organizations may require the same content in all of their business cases, or they may have different requirements depending on the proposed investment. In any event, a business case should clearly identify the proposal and the benefits and risks involved, from demand to value. It should answer the questions often asked by senior management, explaining why the proposal is needed and justifying the investment. Table 2.2 shows a simple business case structure.

Table 2.2 Simple business case structure

Element	Description
Introduction	Presents and summarizes the business case. It describes the proposal and the business objectives it addresses.
Methods and assumptions used	Describes the methods used to create the business case, the organizational context and assumptions used to define the costs and benefits, and the boundaries or limitations of the business case.
Business impacts/outcomes	Describes the expected outcomes of the business case, quantitative or qualitative.
Risks and contingencies	Describes the risks associated with the business case, whether or not action is taken. It describes the options for progressing, and mitigation plans to address risks of failure.
Recommendations	Describes and clarifies recommended actions based on all the information in the business case.

Financial analysis is central to most successful business cases; many organizations have specific guidelines for the type and format of the financial analyses they require to support different types of business cases.

The portfolio prioritization framework may provide information that should be included in business cases, as this information is expected to be used to prioritize investment.

A collaborative approach can be useful when developing a business case, possibly involving workshops with senior management and stakeholders. Key questions to ask include:

- What problems are we looking to solve?
- What will be the scope of the product/service?
- Who will be its consumers?
- What outcomes or added value are we expecting?
- How will we measure success?

The business case must demonstrate that the product or service will add value and/or lead to sustained improvement.

When constructing the business case, it is important to be realistic about what is possible. When evaluating the expected benefits, consider organizational conditions or constraints which may limit the change's potential. These may include:

- Pace of change The magnitude of the proposed change must match the organization's ability to adapt (accounting for other current change initiatives).
- Culture The organization' s culture will either facilitate or inhibit the change. An organization with inconsistent practices requires a different timescale and approach to one with a high compliance culture. Changing culture is very difficult; attempting to do

so can slow the desired pace of change by months or years.

- Resource availability and capacity Depending on the available funding, changes may have to be delivered with existing resources. If more resources are needed, another plan and business case will be required.
- Budget restrictions The available budget' s source and amount will constrain the scope of the proposed changes. Also, it is important to ensure that the new product or service fulfils all relevant stakeholders' needs. Those funding the change may prioritize themselves, so the business case must explicitly communicate everyone's needs.

2.4.3.2 Communicating and advocating for a business case

A business case should be aimed at the appropriate level of senior management, and, if a business case approval process exists, it should be agreed via that process. If a business case does not highlight benefits that are valuable to the organization's leadership and that demonstrate a contribution to the organization's strategic objectives, it should be rejected.

Although a formal approval process may exist, people will still be involved in reviewing the business case. Choices of formatting and language will impact the review; within the boundaries of policies and requirements, thoughtful writing can place important points in a favourable context.

Best practice is to prepare before the business case is formally reviewed. Speaking with stakeholders to understand their priorities, reviewing organizational objectives, examining existing portfolios for potential conflicts, and anticipating objections are all efforts that will be profitable when advocating for business case approval.

Once a business case has been submitted for evaluation, some organizations ask for it to be formally presented to those who will contribute to its eventual approval or denial. This allows the advocate to answer any questions and allay any fears about their proposal. It may involve creating presentation materials, selecting key speakers, drafting counter-arguments for anticipated objections, and conducting practice sessions.

2.4.3.3 The continuing life of a business case

If a business case is approved and work begins, the business case should not be forgotten. Rather, it should be used to keep the initiative on course. Work should aim to achieve the specific outcomes defined in the business case and manage the risks outlined in it. The business case's assumptions should be monitored to ensure the project adapts to changes to conditions in an appropriate, timely manner. Metrics should be created, based on the business case, to verify whether the promised results are achieved.

2.5 Direction via governance, risk, and compliance

Governance, risk, and compliance (GRC) ensures that organizations are doing the right things.

2.5.1 Understanding the role of GRC in decision-making and directing strategies and actions

Ensuring that governance, risk, and compliance are each addressed appropriately can be complicated and time-consuming. Organizations, depending on their size, may have a

person or team responsible for implementing the governing body's decisions and any GRC activities. It is crucial that the governing body understands the GRC function's role in relation to other departments. It must understand the GRC function's accountability for and responsibilities in:

- making specifically delegated decisions
- providing clarity to the rest of the organization based on these decisions
- monitoring the progress that management teams make towards implementing the solutions necessary to realize the governing body's objectives.

An organization's GRC function should work with the governing body, management teams, auditors, and others to translate the organization's strategies and directions into plans, policies, controls, and guidelines that are supported by methods to monitor and measure compliance. This function can help everyone in the SVS and the service value chain to build the practices, policies, and controls needed for compliance into value chain activities.

2.5.2 Defining effective policies, controls, and guidelines

When defining policies, controls, and guidelines, it is important to remember why they are being defined in the first place. A policy that is defined but not followed is useless. An ineffective control is not a control at all. If those for whom a guideline is documented cannot use it, the effort to create it was wasted.

2.5.2.1 Effective policies

An organization's policies are part of its control landscape.

Table 2.3 Effective policy definition recommendations

Recommendation	Explanation
Be clear and concise	A policy must be understandable for it to be followed. Alongside the policy itself, document, as clearly and concisely as possible, its objective and scope and why it matters to the organization.
Keep it simple and practical	Make it easy for people to know what they need to do (or not do), how and when to do it, and what tools and/or systems they should use.
Anticipate questions	Think about questions people are likely to have about a policy. Improving the wording and including an FAQ section can answer many questions before they are asked.
Educate and communicate	When a new policy is implemented, ensure that stakeholder groups are trained in how to follow it. If formal training is not needed, communicate the policy appropriately so that stakeholders can support it.
Build in flexibility	Any exceptions to the policy should be stated in the document. It is particularly important to provide flexibility in circumstances that are beyond the control of the people involved. There should always be a process for requesting, considering, and resolving exceptions to the policy.
Define the consequences of non-compliance	The consequences of failing to follow a policy should be documented. These consequences must then be administered consistently and fairly to prevent the policy from being ignored.
Build in measurement and compliance validation	When a policy is defined, the means of measuring compliance must be defined and implemented. Those who follow a policy should be praised; those who do not should be supported and coached until they, too, comply.
Promote transparency	Policy documentation should be accessible throughout the organization. People should be able to reference policies when needed.
Enable feedback	Policy development should be done collaboratively. Stakeholders then understand the policy better, feel invested, and are more likely to be supportive.

There should be mechanisms to provide feedback on policies, including complaints and suggestions for improvement. Feedback should be compiled, and communication about resulting actions provided.

2.5.2.2 Effective controls

When organizations implement controls, they aim to ensure that each control produces the desired result without creating unintended, undesirable consequences. They do not always succeed. For example, an organization may want to ensure that certain data is available for audit purposes. It may control its data entry system so that relevant fields are required if a new record is to be saved. Employees, however, may enter placeholder values to save the record when that required information is inaccessible. In these cases, the values may never be updated with correct information, leading to bad data and possible audit failure.

Measurement and reporting are common controls. Data is collected, processed, and reported on to verify that desired actions are being performed or that agreed objectives are being met. It is impractical, however, to measure everything. Measurements should be limited to those that can be actively used to make informed decisions. Identifying only the relevant measurements needed to ensure achievement of agreed objectives is in line with the guiding principle of 'focus on value'. However, when designing organizational measures, it is important to account for external factors, particularly legal factors, which are often enforced by regulatory authorities and should be considered mandatory. Regulatory controls cannot be marginalized: doing so would increase risks to the organization.

Automating controls or building them into technology relieves people of the effort of making the controls work. Controls managed in this way should directly align with, and support the achievement of, high-level objectives. However, controls can fail or be circumvented. The organization must define, depending on the consequences, what degree of variation or non-compliance, if any, is acceptable for each control.

2.5.2.3 Effective guidelines

Guidelines are not requirements, they are recommendations which allow for some discretion in their use. For guidelines to be effective, they must be easy to access, understand, and follow, and they must be truly useful.

Providing guidelines for every task in an organization is unnecessary. They might be useful in tasks that:

- are performed by many people, but that seem confusing without assistance
- used to be performed differently
- are infrequently performed but should be performed consistently
- could be completed more easily or faster if organizational expertise were shared.

It is often helpful to ask for input when developing guidelines; the people closest to a task are frequently excellent sources of practical advice and will think of important information that might otherwise be overlooked. Mechanisms for keeping guidelines current and correct are also crucial. If guidelines are dated or incorrect, their usage and effectiveness will drop.

2.5.3 Defining and ensuring compliance

Organizational governance ensures that:

- stakeholder needs, conditions, and options are evaluated to determine balanced, established objectives
- direction is set through prioritization and decision-making

- performance and compliance are monitored against established direction and objectives.

Internal and external stakeholders, such as supervisors, internal auditors, or regulators, help to ensure that organizations are compliant with rules and regulations and have the right governance systems in place to manage and sustain performance and conformity with compliance.

The design and scope of the compliance mechanisms an organization implements will be strongly influenced by the regulatory environment. This may include international, national, local, industry, and corporate regulations and standards imposed and enforced by multiple regulators.

Some organizations find it useful to voluntarily conform to stricter regulations than those they must comply with. This approach both contributes to an organization's image and improves its readiness to comply with regulations that may be introduced in the future.

2.6 Summary

Strategy management is an essential tool for organizations to define, direct, create, and enable value to all of their stakeholders. Often, organizations have lofty ambitions but do not invest enough time to fulfil them. Planning and developing the right strategy is crucial for success

Once the right strategy has been defined, organizations also need the mechanisms to direct and manage the resulting actions. The risk management and portfolio management practices, among others, and the proper use of governance structures are critical to successfully implementing high-level strategies.

3 Assessment and planning

When planning an improvement or other initiative, understanding the current state is critical. This enables the organization to:

- compare the current state with the desired future state
- identify gaps between the two states
- develop a logical plan to close those gaps.

3.1 Basics of assessment

Assessments are used to measure, analyse, and understand something's behaviour and performance; they should improve understanding by accurately reflecting the current state. In the context of service management, assessment typically targets elements of the SVS, such as a service, practice, or value stream. During an assessment, the four dimensions of service management should be considered.

Many types of assessments exist, not only as a part of planning formal initiatives, but also within day-to-day management activities. For example, a service provider organization may want to improve the overall performance of its services, but it will also be engaged in the ongoing monitoring and management of each service's performance. Regular reports on things such as service desk performance, the availability of technology or services, major incident reviews, and change-related incidents are all types of assessments. These can and should be used to understand the current state and plan improvements.

Assessments can be enacted at any level of an organization. People assessing areas in their scope of control will often uncover things that they have the authority to improve. These compounding improvements make a real difference to the organization's progress towards its desired future state.

3.1.1 Effective assessments

Objective assessments involve taking measurements, processing them into metrics, and comparing these with expectations. All of the information should then be documented in a report that supports the assessment's findings and the resulting decisions. Reports created in this way should be retained and used as points of comparison against future assessments.

Thorough assessments not only identify gaps and areas of concern, but also highlight well-performing, productive areas, and areas which can be developed to further improve service. Identifying poor practices and asking for change can improve things, but highlighting positives and encouraging good practices is often far more effective.

3.1.1.1 Types of assessments

When selecting assessment methods and techniques, it is important to understand the nature of the results each one will produce. More than one assessment method may be employed, looking at different facets of the SVS, or looking at the same facet from different perspectives. Table 3.1 shows the three main assessment types.

Table 3.1 Assessment types

Qualitative	Leveraging the assessor's knowledge and experience, qualitative assessments are opinion-driven and are therefore subject to interpretation. Self-assessments are primarily qualitative.
Quantitative	Quantitative assessments are evidence-oriented and are therefore more objective; these assessments rely on accurate, complete data. Formal audits are typically quantitative
Hybrid	A combination of qualitative and quantitative, hybrid assessments involve experts analysing evidence and giving their opinions. Assessments used for identifying and implementing improvements are usually most effective when they employ a hybrid approach.

3.1.1.2 Assessment objectives

Assessments may be designed to be single use or part of a regular programme that tracks the evolution of an organization's capabilities. They should occur before improvement initiatives begin, throughout their progress, and at their conclusion. It is important that the assessment's objective is understood before commencing. Some examples of assessment objectives are:

- to understand how well something is performing
- to establish baselines for measuring the results of future improvement activities
- to understand whether an improvement initiative has met its objectives
- to compare an organization's performance with that of a competing organization
- to understand what needs to change to comply with a standard

Assessment objectives should be defined and documented. It is also important that stakeholders understand the objectives and what will result from the assessment. Without this common understanding, it will be difficult to conduct an assessment that meets the organization's needs.

3.1.2 Collection of current state data or other evidence

Assessments rely on having data or other evidence. Raw data, once collected, should be processed into metrics. The value of the metrics depends on the data's accuracy and completeness. Other evidence, such as evidence gathered from surveys, relies on good communication to convey the intended meaning, and is therefore subject to interpretation.

Table 3.2 Evidence collection methods

Collection method	Output
Metrics/data mining	Metrics derived from existing standard reports or from mining existing data sources
Surveys	Feedback in response to a set of written questions
Interviews	Feedback in response to a set of verbal questions

Roundtables	Feedback gathered from interactive group meetings
Observation	Reports derived from direct inspection and measurement of behaviours and performance

3.1.2.1 Metrics/data mining

This method involves collecting relevant metrics or unprocessed data and processing them into new metrics. Assessing areas that can be reliably measured makes the assessment more objective. However, the implications of the metrics must be interpreted, which introduces subjectivity.

Metrics are only valuable if the data they are based on is relevant, accurate, and complete. Data that does not reflect reality leads to flawed conclusions. If the data being analysed does not reflect enough detail, the accuracy and completeness of the implications will be suspect. When measurements, metrics, and reports stem from reliable data, metrics analysis can produce trustworthy information that can be used throughout an improvement journey.

Table 3.3 Pros and cons of metrics/data mining

Pros	Cons
Once metrics are established, progress can be measured without much additional effort. Data-driven efforts help management to target problems and respond quickly. Using well-understood metrics can help to establish a learning culture	Uniform measurement becomes increasingly difficult with larger and more complex organizations. Sometimes metrics are unreliable until the quality of the raw data improves

3.1.2.2 Surveys

When properly used, surveys can be very effective. Timing is very important: a survey conducted immediately following an event captures different information from one conducted weeks later. The appropriate length of a survey varies as well: too short, and it may not collect enough meaningful information; too long, and the completion and response rates decrease.

Tips for effective surveys include:

- Ask sensitive or higher-risk questions last.
- Assess how to distribute the survey to key communities.
- Avoid leading questions and the use of absolutes, such as ‘always’ and ‘never’
- Communicate the purpose and value of the survey on different forums.
- Ensure confidentiality, where appropriate.
- Limit the number of open-ended questions.

- Personalize the invitation to respond.
- Pilot questions verbally to ensure that they are clear.
- Proofread the document.
- Send out reminders

Table 3.4 Pros and cons of surveys

Pros	Cons
Surveys are not resource-intensive. They can be done anonymously They can be quick to do.	Key stakeholders may not respond. Low response rates can impact validity Numeric responses can be difficult to action. Written responses can be too dense to interpret

3.1.2.3 Interviews

Interviews are similar to surveys, but their conversational nature allows the interviewer more freedom to extract information and establishes a relationship with the interviewee.

Many of the tips for effective surveys also apply to interviews. Tips specific to interviews include:

- Allow time for the interviewee to think about the question and their response.
- Deliberately use open-ended or closed-ended questions, depending on the response needed.
- Reword questions that were not fully answered to get the required specifics.
- Use an even tone throughout the interview.

Table 3.5 Pros and cons of interviews

Pros	Cons
Key stakeholders can be targeted, and their feedback can be captured. Two-way communication establishes trust and encourages information sharing. The interview format allows for initial answers to be clarified.	Interviews can be resource-intensive. The interviewees' impressions of the interviewer can influence their feedback Biases may be introduced. Interviews alone usually do not gather enough data.

3.1.2.4 Roundtables

Roundtables are similar to interviews, but with more opportunity for spontaneity and

interaction. They involve small groups meeting to discuss a topic. The questions, participants, location, agenda, and desired outputs are carefully planned by the organizers, and a facilitator guides the meeting as it progresses.

The nature of group discussions means that participants are likely to follow thought patterns different from those that would have occurred to them in an interview. Comments from one participant will spark a thought in another, and the conversation will move in a new direction.

Tips for conducting roundtables include:

- Ensure everyone at the table can participate.
- Hold multiple sessions, some with participants from similar roles and some with people from very different roles.
- Keep groups to a moderate size: eight participants per session is ideal.
- Record the discussions.
- Select participants who will provide a mix of perspectives.
- Use an experienced facilitator to guide sessions without constraining conversation.
- Use open-ended questions.

Table 3.6 Pros and cons of roundtables

Pros	Cons
Key stakeholders can be targeted, and their feedback can be captured. The facilitator can explore areas beyond the scripted questions, if time allows. Answers can be clarified or contextualized, potentially increasing their value. Participants will inspire thoughts in each other beyond what they might think of on their own.	Roundtables require significant preparation and expertise. Roundtables can be resource-intensive. The interviewees' impressions of the interviewer can influence their feedback. Biases may be introduced.

3.1.2.5 Observation

Observing at the source means going to where value-creating activity occurs in the organization and watching it happen.

Observers should ask questions. It can be helpful when they have little knowledge of the activity, because they will have no preconceptions. If an observer is familiar with an activity, they may make invalid assumptions or fail to ask basic questions.

Observers should document their findings with an evaluation tool. The level of detail of the assessment will depend on its objective. For instance, if service desk professionals are to be regularly observed taking calls and scored based on their interactions, a detailed evaluation tool will minimize subjectivity. When planning an observation assessment, it is

important to ensure that the evaluation tool and the observer's knowledge match the assessment's objectives.

Pros	Cons
Observation provides better evidence than surveys or interviews. It provides a better description of behaviour through genuine reactions of subjects. It is a better indicator of actual results than models or predictions.	Observation can introduce a high degree of observer bias. If subjects know that they are being observed, they may act differently from normal. Interpretation of the results depends on the observer's qualifications. Observation is time-consuming

3.1.3 Choosing an assessment method

Once information about the current state has been collected, it must be critically analysed to assess its meaning and get an accurate understanding of the current state.

The assessment method(s) chosen will depend on the assessment's objectives and the outputs that it should produce. It is important to think critically and objectively during the assessment process, to increase the likelihood that its conclusions will be valid.

This section examines assessment methods in detail and looks at the advantages and disadvantages of each. In most cases, it will be appropriate to use multiple assessment methods to get a clear understanding of the current state. It may also be appropriate to carry out several iterations of the same assessment during an improvement journey. Table 3.8 gives an overview of the various assessment methods and their outputs.

Assessment method	Output
Gap analysis	Identification of the differences between actual practice and the chosen assessment criteria.
SWOT analysis	Identification of strengths, weaknesses, opportunities, and threats.
Change readiness assessment	An estimation of the organization's ability to transition to a new way of working.
Customer/user satisfaction analysis	Analysis of how customers and/or users feel about the services they use, based on their feedback.
SLA achievement analysis	Analysis of the quality of a service or services based on a comparison of service performance against service level agreement (SLA) targets.
Benchmarking	A comparison of the results of this assessment with the results of similar assessments performed for other comparable organizations.
Maturity assessment	An estimation of the maturity of a process or an organization based on a defined framework, such as the ITIL process maturity model.

Organizations often re-use assessment methods, but it is important to explore new options based on the situation at hand.

3.1.3.1 Gap analysis

A gap analysis is used to compare a current state with a desired future state. The output of this analysis highlights the nature and scope of the gap between the two states and can provide a basis for plans to move the organization closer to achieving their objectives.

A Guide to AgileSHIFT™ (AXELOS, 2018) refers to this gap as the 'delta'. The delta can be

understood by considering:

- where the organization currently is
- where it wants to be
- where competitors are or are moving towards
- where customers want the organization to be.

The delta is not static. The desired target state will constantly move as the context changes and evolves. As the delta grows, so the organization should continue to focus on understanding it and progressing towards the desired state. This implies that gap analysis should be a continual practice rather than a one-off exercise.

Table 3.9 Pros and cons of gap analysis

Pros	Cons
It enables the documentation of customer experiences against customer expectations. It provides a basis for prioritization It allows for the collection of productivity measures. It documents product or service features that are accidentally left out or deliberately eliminated, or which require additional development. It provides an active comparison of current activities with compliance requirements.	A gap analysis is not an economical evaluation method. Areas performing similar or duplicate functions may not be included in the scope of the analysis (e.g. incident response teams performing change management). Interpreting the results is subjective.

3.1.3.2 SWOT analysis

A SWOT analysis identifies strengths, weaknesses, opportunities, and threats. It is one of the oldest methods for determining internal and external threats to the organization and for showing how it differs from its competition.

Strengths and weaknesses are internal factors that impact the organization's ability to

progress towards its objectives. Threats and opportunities are external factors that are outside its control, but which must be considered when planning changes and improvements.

A SWOT analysis organizes strengths, weaknesses, opportunities, and threats into a list.

A SWOT analysis provides information used to harness organizational strengths, minimize the impacts of weaknesses, exploit opportunities, and mitigate threats. As with other assessment methods, SWOT analyses can be implemented at an organizational, departmental, or individual level, and are most effective if done as an in-person group activity.

Table 3.10 Pros and cons of SWOT analysis

Pros	Cons
Can be swift to compile and deliver. Provides focus at strategic, management, and operational levels supporting objectives. Permits compartmentalization to enhance strengths and opportunities while addressing weaknesses and threats independently. Follows the same process whether the subject is a strategy, business case, product, or service.	Identifying and scheduling the right participants can be difficult and time-consuming. SWOT analyses do not usually prioritize or weight the resulting lists. SWOT analyses are subjective.

3.1.3.3 Change readiness assessment

A change readiness assessment estimates an organization's preparedness to transition to a new way of working. Many factors can impact the ability of an organization, department, or team to successfully adapt to change. Assessing these factors before starting a change initiative highlights those which may impede its success.

An organization that is adept at accepting change and transitioning to new ways of working is one where the potential of continual improvement is most likely to be realized. If every change is met with resistance, the drive for improvement is likely to falter and eventually fail. A change readiness assessment will provide information that will help to direct activities in areas likely to impact the success of change initiatives.

Change readiness assessments help to identify potential change agents within the organization and provide them with valuable information to facilitate the change.

Definition: Change agent

A role that facilitates the development, application, and advocation of new ways of working.

Change readiness assessments may consider a range of factors influencing preparedness, including organizational conditions and resources and the attitudes of stakeholders.

Pros	Cons
Allow change agents to address the human side of change with full awareness of where issues lie. Identify potential challenges before implementing change. Increase the probability that changes will be implemented successfully and sustained.	Change readiness assessments consider complex factors which may overwhelm assessors. Employees' reactions to change readiness assessments are difficult to predict. Change readiness models are numerous and subject to interpretation. Identifying the obstacles to successful change does not mean the organization can or will address them.

3.1.3.4 Customer/user satisfaction analysis

Understanding customers' and users' satisfaction levels is valuable input for most improvement initiatives. When iterative changes are planned, it is important to consider the effects they will have on customers and users. Once the change has been made, it is important to establish whether satisfaction levels have improved as expected.

Depending on the type of service, user and customer roles can be combined or fulfilled by different people. In the latter case, it is likely that the customer journey, customer experience, and customer satisfaction will be different from those of users. They may, therefore, require a different approach to assessment and analysis.

Pros	Cons
Information about SLA achievements initiates productive conversations about the performance, priorities, and future of service relationships. SLA achievement motivates continued achievement, as both the provider and consumer realize its value. Metrics used for SLA achievement assessment are among the best understood metrics, making them an excellent source of ideas for improvements.	If the targets established in an SLA do not reflect what service consumers want and need, the assessment of whether or not they have been achieved will not reflect the consumers' satisfaction. The underlying causes of issues with SLA achievement may be difficult to discover and complex to solve.

3.1.3.5 SLA achievement analysis

Definition: Service level agreement (SLA)

A documented agreement between a service provider and a customer that identifies both the services required and the expected level of service.

SLAs document specific service level metrics and targets that have been negotiated and agreed between the service provider and its customers.

SLAs usually rely on sound measurement and reporting. If service level targets are not met, urgent improvements are required.

As with other metrics-based analysis, looking at metrics is not enough to know what actions to take; metrics must be critically analysed to determine the correct course of action.

SLA achievement analysis is an excellent example of an assessment that occurs on an ongoing basis and without which service quality is unlikely to be maintained. But, as well as ongoing assessment activities, SLA achievements can and should be assessed more broadly to identify systemic issues that may need to be addressed.

3.1.3.6 Benchmarking

Benchmarking is the act of measuring the performance of an organization's products, services, or practices against those of a similar organization. Comparing an organization to one that performs better may highlight change initiatives that could yield tangible improvements. Benchmarking should be a regular exercise as part of the continual improvement practice, allowing organizations to match or surpass their competitors' performances. It is also a valuable tool for motivating cultural change based on the premise that organizations can become the standard that other organizations measure themselves against.

Although benchmarking is generally done at an organizational level, it can be valuable to compare specific areas of high-performing organizations. For example, a problem manager may want to understand what another organization with a lower major incident occurrence rate does differently in its problem management practice. Talking to counterparts in similar roles can provide valuable insights, which may lead to worthy improvement initiatives.

Before enacting a benchmark comparison, it is important to ensure that the organizations being compared are truly comparable. Two organizations in the same industry, for example, may serve significantly different markets, making a benchmark comparison less relevant and less valuable.

Table 3.14 Pros and cons of benchmarking

Pros	Cons
Places a focus on ideas for improvement.	Does not always transfer well between organizations without context.
Provides quantitative and explicit standards for organizations to compare themselves against.	Does not measure effectiveness.
Provides a means for competitive analysis or potential partnering.	Can introduce industry bias based on revenue rather than practice.
Can examine against multiple industries.	Aims to identify industry leaders, leading to standardized, but not necessarily ideal, behaviours.

3.1.3.7 Maturity assessments

Maturity assessments evaluate the capability of something, usually a process or an organization, compared with a maturity framework, model, or scale. Reference models used for assessments typically include multiple levels, each describing the characteristics of a specific practice or the entire organization.

Maturity assessment results come as a maturity rating alongside detailed descriptions of the supporting evidence. The organization must decide whether the assessed maturity is acceptable; if it is not, it should pursue improvements.

Organizations should understand the downsides of maturity assessments. Comparing an organization or its practices to external reference models is only valuable if it drives improvement. Too often, organizations pursue a target maturity level without understanding why reaching that level is important.

Table 3.15 Pros and cons of maturity assessments

Pros	Cons
Facilitate the prioritization of resources to effect maturity. Provide a baseline for measuring improvement. Set specific maturity targets, thereby giving organizations a focus for their efforts.	Different perspectives of maturity may impede an organization's ability to progress. Can be costly for organizations or processes to mature. There is a risk of aiming to move up the maturity levels rather than improving the organization or its processes.

3.1.4 Defining assessment objectives and criteria

Understanding the objectives of any assessment programme is essential. If more than one type of assessment method is to be used, each assessment's role must be clearly defined. If its objectives are too broad, the assessment is likely to be expensive and time-consuming. However, a narrow scope is unlikely to deliver enough information.

Asking and answering certain questions will help to define each assessment's key elements and ensure they align with the high-level vision for improvement. In particular, each assessment objective must be agreed and clearly defined; otherwise the following questions cannot be answered in a meaningful way.

Key questions include:

- What are the assessment' s objectives?
  - What information is needed from the assessment?
  - Who is the audience for the assessment report?
- What is needed to be able to perform the assessment?
  - Who will conduct the assessment?
  - Who needs to participate in the assessment?
  - Which areas of the organization or SVS will be in the assessment' s scope?
  - What materials or technologies are needed for the assessment?
- What criteria will be used for the assessment?
  - What will the assessment' s definition of success be?
  - What specific aspects of the in-scope parts of the organization or SVS must be examined?
- What outputs are expected from the assessment?
  - What form should the assessment output take?
  - What metrics need to be included in the assessment output?
  - What questions should the assessment answer?

When assessment is used as an ongoing management tool, this information should be re-evaluated annually, atleast, to ensure the methods in use are still effective.

3.1.5 Conducting assessments and producing outputs

Assessments are often contracted to third parties, but the change agents themselves must define each assessment's objectives and scope. A common approach is to use an independent assessor, because as they are new to the organization, they often notice improvement opportunities that change agents miss.

It is important to think carefully about whether it is appropriate to use a third party to conduct an assessment. Not doing so may save money, but it may not produce the results needed. Consider the following points when deciding whether to use a third party:

- Do the skills, experience, and resources needed exist in-house?
- Will the in-house resources have sufficient independence to offer a fair assessment?
- Are the in-house resources credible enough to ensure that their findings will be accepted?
- Are appropriate assessment criteria accessible?
- What is the cost of engaging a third party compared with that of conducting an internal assessment?
- Is external benchmarking data that must be supplied by a third party necessary?

The skills, effort, and resources needed to conduct a successful assessment are often underestimated. Many assessments require specific tools and data that may be unavailable in-house, so it is often easier to engage third-party expertise to enact them.

Two of the most important outputs of any assessment are the data and information that have been collected, processed, and presented. If all the outputs of an assessment are qualitative rather than quantitative, there is more potential for bias or subjectivity. The analysis of the data and information produced will be important evidence to support the assessment's conclusions.

3.2 Basics of planning

In any organization, or team, planning leads to a better understanding of the resources that will be needed to achieve the desired results. Planning changes to ways of working without knowing what new or changed resources will be needed will result in undesirable consequences.

Planning must come before action, but should not be overdone to the point of 'analysis paralysis', where so much time is spent planning and strategizing that the action never starts. The Agile way of working encourages people to aim to produce a minimum viable product (MVP) before a perfect result, specifically to avoid this planning hazard.

Planning should be done to a level appropriate for the work being undertaken. Plans made at the outset of a project will not be fit for purpose for the life of the initiative; they should always be re-evaluated and adjusted over time.

During a work stream's planning phase, it is important to ask: 'How does this plan align with our overall strategy?' No matter how small or seemingly inconsequential a plan may seem, it should contribute to fulfilling the organization's strategic objectives. It the plan seems not to do this, it may not be worthwhile.

3.2.1 Leveraging different ways of working in action plans

Plans can take many forms and leverage many ways of working. The most familiar and structured form a plan can take is a project plan, which could cover years of work, with sub-project plans and interdependent phases requiring dozens of people's involvement. However, a plan can also be as simple as an individual's to-do list.

Project plans can include different ways of working, depending on the type of initiative, its objectives and constraints, and the experiences of the people involved. This section will explore three well-known ways of working: waterfall, Agile, and a hybrid of the two. Although these ways of working were originally created for use in IT development projects, their key characteristics are applicable in many other contexts and scopes.

Ways of working should be deliberately chosen based on the type of work being undertaken. Choosing well involves considering the needs of the project, the familiarity of the change agents with each way of working, and the resources that each way of working will require.

Deciding whether to use a waterfall, Agile, or hybrid approach to plan and manage a programme of work depends on several factors.

Table 3.16 Considerations for waterfall, Agile, and hybrid work methods

Waterfall	Agile	Hybrid
Requirements are clear and unlikely to change	Requirements are uncertain and subject to change	Overall requirements are clear, but details are uncertain
Customers prefer to dictate requirements and see expected results	Customers like to be involved in the project	After the primary requirements are defined, customers are willing to be involved periodically
The risk of failure to the organization is high	The impact of small faults or other flaws on the organization is low	The risk of failure to the organization is significant, but incremental steps can be imperfect
Quality is more important than speed	A rapidly changing market dictates a need for rapid deployment	A broad view is needed from the start, but it is important to show incremental progress along the way
Management expects to see a formal action plan, metrics, and other detailed documentation	Working solutions are more important than artefacts	Management expects to see some formal artefacts for the project, but good communication is most important
There are many dependencies with other systems, services, or elements of the SVS	The project's subject area either stands alone or has very few dependencies	There are some dependencies, but they are well understood and manageable
Team members are specialists who only know one role	Team members are flexible and able to adopt multiple roles	Team members have specialities, but are also able to work well across roles and in small groups

3.2.1.1 Waterfall

A plan using the traditional waterfall method is divided into distinct phases; every phase must be completed fully before any work on the next can start. The output of the project or initiative cannot be delivered until every

phase is completed and the product is in its final state. At the end of each phase, there is a review to assess the project's state and determine whether the next phase can begin. These checkpoints are sometimes called project gates.

Waterfall-based workflows aim to deliver a near-perfect solution at the end of the project. There are several advantages to the waterfall method, and specific situations in which it is

an optimal way of working. For example, waterfall development techniques are likely to be used in situations where an incomplete or faulty system could result in dire consequences. A major disadvantage of this way of working, however, relates to the rapid rate of technological change. Projects managed by this method often take a long time to complete, meaning that technology may surpass the final output before it is ever used.

The benefits of a waterfall way of working include the following:

- Its structure is controlled, with each phase having specific deliverables.
- Many people are familiar with waterfall-style projects, so it is easy to align expectations.
- Phases are completed one at a time with no overlap, allowing for checkpoints to validate progress.

3.2.1.2 Agile

Agile ways of working organize projects into small, self-contained units called iterations or sprints. Each sprint normally lasts between one and three weeks, and will focus on work that can be completed and delivered in that time period. Agile planning concentrates on deciding what can be completed in each sprint, building repeatable processes, and helping teams understand how much they can achieve in short periods.

In an Agile way of working, teams do not attempt to plan or deliver a large product all at once. They plan to deliver smaller, functioning products that will satisfy customers in shorter timeframes.

The benefits of an Agile way of working include the following:

- **Greater control** Small, incremental developments are continually reviewed and adjusted.
- **Better productivity** Projects are completed in small sprints, allowing products to be deployed quickly.
- **Better quality** The iterative nature and feedback loops of an Agile way of working allow problems to be found, isolated, and resolved faster.
- **Higher customer satisfaction** An Agile team works closely with customers, allowing for fast feedback and changes to suit their evolving needs.

3.2.1.3 Hybrid

There are several ways of hybridizing waterfall and Agile ways of working into one approach. A common method uses an overall phased structure, similar to a waterfall project, with the requirements being gathered in a single phase, followed by the high-level design. The development work, however, is conducted iteratively in sprints, using feedback to validate success and adjust upcoming sprints accordingly. Unlike with true Agile projects, though, the final output is all released at one time towards the end of the project, rather than iteratively at the end of each sprint.

The benefits of a hybrid way of working include the following:

- It balances the structure and control of waterfall and the speed and flexibility of Agile.

- Because the final output is not released until all sprints are completed, there is time for errors in individual sprints to be corrected.
- It can be an intermediate approach for teams who are accustomed to waterfall but want to learn how to work in an Agile way

3.2.2 Monitoring progress

Regardless of which approach has been used, progress against the plan needs to be measured regularly. Plans, even waterfall and hybrid-type plans, must be monitored and adjusted to ensure that external factors have not necessitated changes. For example, a planned customer-facing service may need to be modified quickly in response to new technology being exploited by a competitor. If plans cannot be adjusted, their outputs will be obsolete before they are delivered.

Agile's basic premise is that it can change direction quickly, without losing momentum. Monitoring outside influences and internal pressures during the life of an Agile project is essential. Monitoring feedback from relevant stakeholders as each iteration of the plan is delivered will dictate any changes in direction that are needed.

3.3 Introduction to value stream mapping

Value stream mapping is a method of visualizing the flow from demand or opportunity to value, and then planning how that flow can be improved. The method originated with Lean manufacturing techniques, but it applies equally well to the creation and delivery of products and services, as described in ITIL Create, Deliver and Support. There are many value streams in the provision of products and services. The flows of activity for restoring a service quickly, delivering a service at the agreed level of availability, or managing a service change could all be defined in a value stream map. Everything that an organization does should map, directly or indirectly, to value for the stakeholders.

Value stream mapping is used to gain insight into organizational workflows. It can help to identify value-adding activities and non-value-adding activities in a value stream, while highlighting opportunities for optimization and automation. Value stream mapping includes assessment (documenting the current state of the workflow from demand or opportunity to value) and planning (planning what changes will be made to improve that workflow). A value stream map's most important role, however, is determining which improvement actions must be implemented to achieve the desired future state.

The results of value stream mapping can be used in many contexts, including writing a business case, defining a prioritized list to optimize value streams and practices, and locating bottlenecks in existing practices.

Value streams often extend across many partner, supplier, and service consumer organizations. An organization that is new to value stream mapping, however, may need to start simply, focusing on those aspects of the value stream that are within the organization itself. Over time, it can expand the scope of its value stream maps, thereby finding more opportunities for optimization.

3.3.1 Lean

Lean and value stream mapping are closely related. The core idea of Lean is to maximize customer value while minimizing waste. Simply, Lean means creating more value for service consumers with fewer resources. Resources of all types, particularly human resources, should be used to their best effect. Anything that is wasteful should be eliminated, and technology should be used to its maximum potential. Human intervention should only happen where it really contributes value.

Lean aims to provide perfect value through a perfect value creation process that has zero waste. Lean thinking encourages management to focus not on siloed technologies, assets, and departments, but on optimizing the flow of products and services through entire value streams that flow horizontally across technologies, assets, and departments to service consumers.

3.3.2 Avoiding local optimization

In many organizations, focusing on an individual process leads to optimizing the steps in that process within a small scope of control, such as for a single team or department, while overlooking the impacts of the changes on the whole value stream. Local optimization can create a bottleneck further down the value stream, and can make its overall performance worse, not better.

Eliminating waste along entire value streams, instead of at isolated points, creates processes that need less human effort, space, capital, and time to make products and services at less cost and with fewer defects.

A value stream map is an excellent tool for optimizing the whole value chain. This larger view is in perfect alignment with the guiding principle of ‘think and work holistically’.

3.3.3 The value of value stream mapping

Value stream mapping is valuable because it:

- helps organizations to visualize more than the single-process level in production
- helps organizations to identify and remove waste
- highlights where decisions about workflow need to be discussed and made
- incorporates Lean concepts and techniques
- helps to plan and document improvements.

3.3.4 Developing a value stream map

Definition: Value stream map

A visual representation of a service value stream which shows the flow of work, information, and resources.

The first step in developing a value stream map is to document the current way of working to form the baseline. The baseline highlights steps or activities that do not add value to the service consumer and therefore can be seen as pure waste.

It is important to map the value stream with a group of representatives of its key activities, and to encourage individuals to reflect on the current state to identify bottlenecks and other impediments. This ensures that all activities are included, provides a common understanding of the current state, and increases the likelihood that proposed changes will be accepted. Mapping the value stream manually at this stage can further collaboration.

Once the current state of the value stream has been defined, the group should determine improvements that can be made and map what the future state will look like after they are implemented. This exercise is usually focused on identifying waste and improving the flow.

Table 3.17 Types of waste

Waste type	Meaning
Muda	Waste, uselessness, futility. Things that are being done but which add no value.
Muri	Overburden, excessiveness, or unreasonableness. Caused by rigid service timeframes, release windows, and other such time constraints.
Mura	Variability, unevenness, non-uniformity, irregularity. Unacceptable variation or impediments in ways of working or workflows.

Table 3.18 *Muda* subcategories

Waste type	Description
Transport of goods	Movement of work product, information, materials
Inventory	Work in progress, having more than strategic levels of products
Motion of people	Unnecessary physical movement
Waiting time	Stopping or slowing down, waiting for work to arrive
Overproduction	Producing more than is needed or before it is needed
Overprocessing	Excessive or unnecessary work
Defects and rework	Reworking to correct mistakes, inspection, and scrap
Talent	Unused human creativity and potential

Planned improvements should be implemented within an agreed timeframe; many organizations limit it to three months. Short timeframes allow for quick progress and help to maintain momentum. This aligns with the guiding principle of ‘progress iteratively with feedback’. If improvements will take more than three months to implement, the team should attempt to split them into stages that can be implemented faster.

The team should differentiate between high- and low-impact improvements, considering feedback from consumers. The value stream’s future state should then be documented and communicated to the relevant stakeholders.

As planned improvements are implemented, the future state value stream map becomes the current state value stream map. Value stream mapping is iterative, and value streams should be remapped as ways of working and other factors change.

3.3.4.1 Increasing the detail in value stream maps

A value stream is mapped by detailing the flow of its steps. Initially, basic information is added so that the value stream map is understandable for anyone who needs to study it. This includes outlining the value stream’s inputs and outputs.

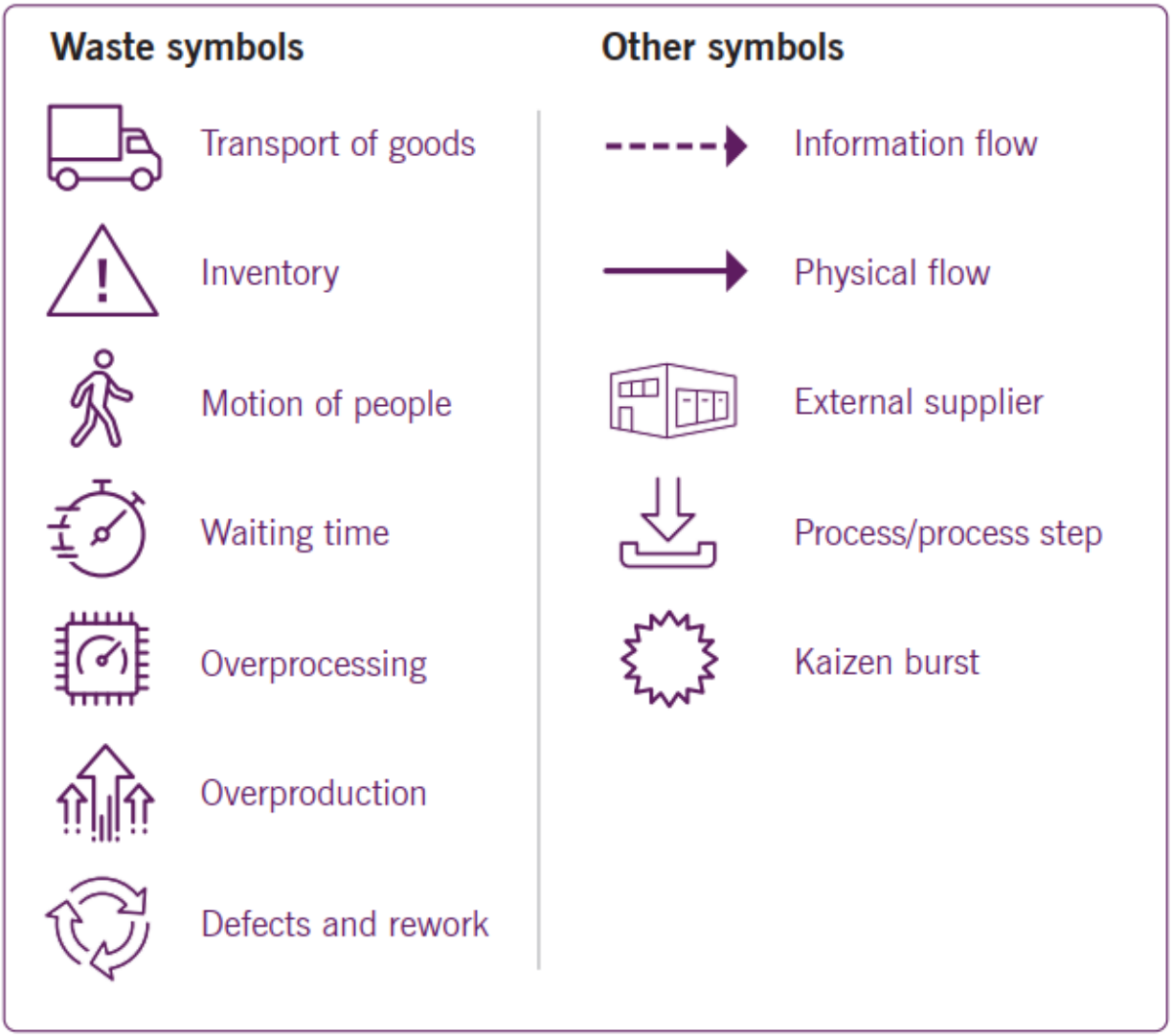
High-level information, however, is not enough. Value stream maps need to be more specific to enable detailed analysis. Quantifying the workflow and identifying waste is easier when logical and measurable steps are defined in the map.

It is important to balance detail and clarity in a value stream map. Too little detail, and the map will be difficult to use for analysis and improvement. Too much detail, and it will be confusing.

As value stream mapping has grown in popularity, symbols representing aspects of a value stream have developed. Symbols are valuable: they simplify and clarify value stream maps. The most important symbols are about waste. Highlighting the different kinds of waste in a value stream using symbols makes them easier to see and address.

It is important to be able to distinguish between physical flows and information flows, so distinct symbols are used to differentiate between them. Another useful symbol is called the kaizen burst. This symbol illustrates areas where more investigation is needed; they are areas where the team knows that something is wrong, but has not been able to identify the exact issue.

Figure 3.2 shows some value stream mapping symbols.



3.3.5 Typical mistakes in value stream mapping

Table 3.19 Typical mistakes in value stream mapping

Mistake	Advice
Using mapping solely as a work design exercise	Frequently, value stream maps are used solely to improve value stream performance, but they can also be used to realize the potential benefits of organizational learning, cultural shifts, and leadership development.
Overcomplicating maps	Value stream maps can become too detailed and complicated for people to understand and use. It is important to apply the guiding principle of 'keep it simple and practical' by not adding unnecessary detail.
Creating maps but taking no action	Current and future state value stream maps without a plan for getting to the future have little value. Similarly, a plan that is never implemented is wasted effort.
Mapping with an inappropriate team, or no team at all	Because value stream mapping is a strategic improvement activity and future state maps often require significant organizational change, the mapping team must include stakeholders who can authorize those changes.
Creating maps without metrics	Actively measuring elements of the value stream, such as throughput or activity duration, allows for analysis, understanding, and comparison.

3.4 Summary

Assessments are a critical part of any continual improvement journey: defining the assessment's objectives, scoping it appropriately, and understanding how to move from the current state to the future state are pivotal. If you follow each iteration of improvement with another assessment to validate your results, this will help when planning the initiative's next stage.

4 Measurement and reporting

Measurement and continual improvement are intertwined and fundamental to every aspect of IT and service management. Without measurement and analysis, improvement decisions will be made on instinct and assumptions, introducing a high level of risk. Choosing what to improve, directing activities, and validating improvement success cannot be done effectively without the information provided by measurement and reporting.

4.1 Basics of measurement and reporting

The measurement and reporting practice contributes to every aspect of the SVS.

The purpose of the measurement and reporting practice is to support good decision-making and continual improvement by reducing uncertainty. This is achieved by collecting relevant data and assessing it in appropriate contexts.

Data can be collected on products, services, practices, value chain activities, teams, individuals, suppliers, partners, and the collective organization.

What is not understood cannot be improved. Well-defined measurement and reporting practices help organizations to understand whether they are meeting their service consumers' needs. Monitoring IT systems, surveying service consumers, or processing data from IT and service management toolsets provides metrics; analyzing those metrics provides meaningful information to support better decision-making. It is critical to know why something is being measured and how the measurement will be used, to ensure that time and effort are not wasted.

Effective reporting highlights information that matters to the organization, including where more progress towards objectives is needed, and the relative performances of key products and services. It is important to understand how each of the four dimensions of service management is performing. If any dimension is neglected, the perception of how the organization is performing is likely to be incorrect.

4.1.1 Key concepts of measurement and reporting

Definition: Measurement

A means of decreasing uncertainty based on one or more observations that are expressed in quantifiable units.

The data resulting from measurement can be processed into meaningful metrics.

Definition: Metric

A measurement or calculation that is monitored or reported for management and improvement.

Organizations select metrics that will provide them with meaningful information and help them to make good decisions. Important metrics associated with objectives can be used as indicators.

Definition: Indicator

A metric that is used to assess and manage something.

In order for a metric to be used as an indicator, a target trend and value should be assigned to it. It is also common to set a tolerance for deviations from the target. To aggregate indicators for analysis and reporting, the metrics need to be converted to a common scale (usually a percentage scale) and weighted depending on their importance. These normalized metrics can be used in dashboards and reports that are provided to relevant stakeholders.

Definition: Report

A detailed communication of information or knowledge about a topic or event.

A report may be organized and presented in any way that will effectively communicate the intended information to the target audience. Reports can be organized in many different ways, such as in a narrative, graphic, or tabular form. They can be prepared on demand, such as through dashboards or clickable reports, or on a periodic basis. Reports may refer to specific periods, events, or subjects, and may be communicated or presented in various forms.

A report's intended audience may include any kind of stakeholder, but its format, content, presentation method, and scope should be tailored to both its producer's and its audience's needs.

Reports are only useful if they provide accurate, complete, and well-organized information; valuable reports present meaningful conclusions or discoveries, supported by processed data. Organized data alone is not a substitute for applying critical thought to the metrics that have been collected. Organizations must plan what they will measure, what they will do with their measurements, and how they will analyse and interpret their data so that the eventual reports convey meaning.

4.1.2 Defining and using measurements and reporting

Deciding what to measure can be very difficult. It can be tempting to measure everything, but this wastes resources and makes it harder to distil information that can be used to improve the SVS and further the organization's mission.

Measuring how well each part of the SVS is functioning, and the value that is being created, will highlight what needs to be improved. Well-defined reporting, using sensible measurements, enables objective, grounded decision-making.

Measurement and reporting must be under constant review; agility in this practice is essential. An organization must be prepared to stop measuring things that are no longer relevant, and reporting must relate to the organization's changing needs. When a change in direction is made, the measurement and reporting practice must be able to adapt, and to highlight measurements that indicate the organization's position in relation to new objectives.

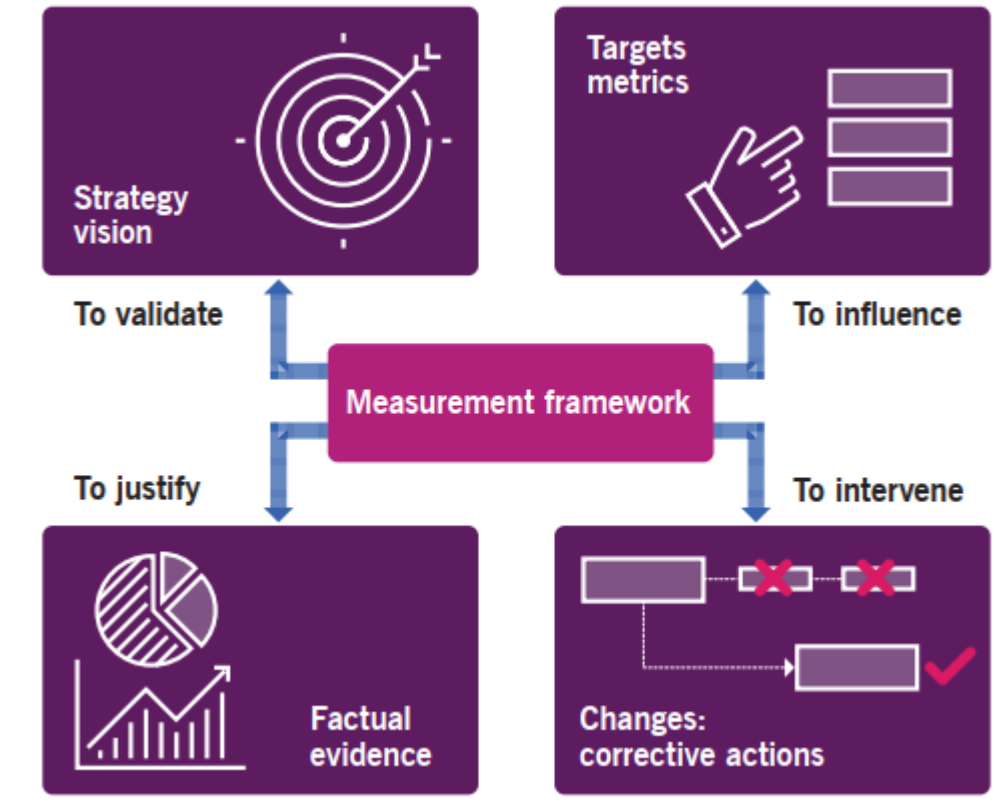
4.1.3 Reasons for measuring

It is important to ensure that measurements are aligned with the organization's objectives,

and that they guide the direct, plan, and improve activities. The organization must understand why something is being measured, and what the metrics will be used for, before measurement activities begin.

Table 4.1 Four key reasons to measure

Reason	Explanation
To validate	By measuring achievement against targets or objectives, past decisions can be validated.
To influence	By defining measurable targets, an organization sets the direction for activities, and sets expectations for outcomes. It is important to understand how each metric influences people, as the effect of a measurement on behaviour and expectations is not always what was intended.
To justify	Use metrics to justify with evidence or proof that a course of action is required. For example, metrics produced to support a business case.
To intervene	Measurements can be used to pre-emptively identify a point of intervention, including for subsequent changes and corrective actions.



4.2 Types of measurements

Measurements can be seen as falling into five broadly defined types: progress, compliance,

effectiveness, efficiency, and productivity.

Table 4.2 Types of measurements

Measurement type	Description	Examples
Progress	Progress measurements demonstrate the degree of achievement relative to defined milestones and/or deliverables. They may be seen as indicators of something's degree of completeness.	Percentage of unit tests executed and passed Percentage of use cases with completed documentation
Compliance	Compliance measurements demonstrate the degree of adherence to governance and/or regulatory requirements.	Percentage of changes executed without prior authorization Number of non-compliance audit findings
Effectiveness	Effectiveness measurements demonstrate the degree of fitness for purpose of any part of the SVS, a product, or a service.	Number of broken links on the public customer order website Percentage of failed payment transactions
Efficiency	Efficiency measurements demonstrate the degree of fitness for use of any part of the SVS, a product, or a service.	Percentage of services meeting their availability targets Percentage reduction in processing time for loan application
Productivity	Productivity measurements demonstrate the throughput of a system (a value stream, a process, a service, a component) over a period of time.	Number of tasks fulfilled by a team Number of customers served at a supermarket cash register

4.2.1 Understanding the relationship between measurement and behaviour

One reason for measuring is to direct behaviour. Measuring something impacts, positively or negatively, the behaviour of the people responsible for that thing. Organizations must ensure that, for every measurement, the intended and potential impacts on behaviour are understood and planned for.

For example, an organization may want to accelerate incident resolution. If it measures this by calculating the time between incident opening and incident closing, employees may artificially improve their statistics by prematurely marking incidents as closed. Although the metrics may indicate that resolution times have reduced, examining incident reopening rates may disprove them.

It is also important to remember that measurement and reporting are for information and improvement, not for placing blame. Where reporting identifies failures or weaknesses, these must be viewed as opportunities forimprovement. Employees who know they will be blamed when measurements uncover undesirable results will often mask problems, making it very difficult for the organization to correct them. Ultimately, organizations must consider what they measure and how they will react to the information resulting from the measurement. These factors will impact people's resulting behaviour.

4.2.2 Measurement cascades and hierarchies

Measurements and metrics must align with higher-level requirements, including the organization's vision and mission, if they are to be used effectively to drive decision-making and improvement. Various approaches to organizing measurement can be used when

aligning measurements and metrics with strategy, including:

- a planning and evaluation model
- a balanced scorecard
- an IT component-to-scorecard hierarchy
- an organizational improvement cascade.

These all highlight the importance of cascading down from the organizational vision to the measurements. Measurements that cascade down from the vision will provide a clear focus on what really matters.

4.2.2.1 Planning and evaluation model

For an organization to make good decisions, it must measure the right things. This can be done by connecting what is measured to the organization's desired outcomes and the purpose it wants to fulfil.

The model can be used throughout an organization to establish meaningful metrics for a variety of activities. Different people may attach different terminology to the levels of the planning and evaluation model, but some basic principles apply.

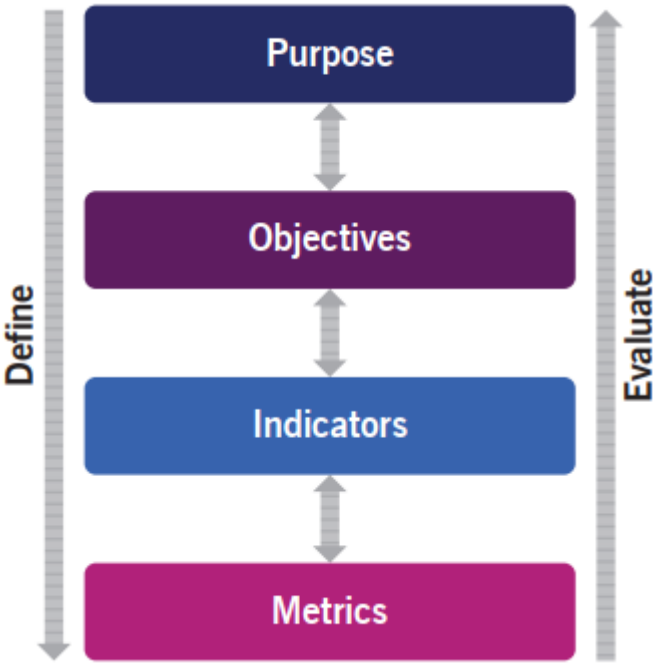


Table 4.3 The planning and evaluation model levels

Term	Questions answered	Practical application
Purpose	Why are we doing this?	This is where the core mission is articulated. Everything needed to achieve and validate the mission can be determined from this high-level purpose. The purpose should be defined at the appropriate level. It should be specific enough to define the associated objectives.
Objectives	What would a successful result look like? What are the characteristics of success?	Objectives are used to define what should be achieved or created to ensure that the desired purpose will be fulfilled. They refine the defined purpose into specifics. There will typically be several objectives associated with the purpose, each of which will need to be acted on, with the results of that action being measured.
Indicators	What measurable results would indicate success? How many different indicators are needed for effective evaluation?	To evaluate the achievement of objectives, a balanced set of indicators should be defined based on relevant metrics. For each objective, there will be at least one, but more likely several, measurable elements that will indicate the degree of success in achieving what was desired. An indicator is typically based on one or more metrics, each one associated with a desired trend or target. Indicators should not be treated as objectives; their effects on people's behaviour should always be considered.
Metrics	What are the numbers? How many per period? How long per issue? What percentage of all items recorded?	Metrics are used to collect data for evaluation and assessment. It is important to ensure that this data is relevant, accurate, reliable, and up to date. Every indicator is based on one or more metrics, but not every metric contributes to an indicator.

Different terms may be applied depending on what is being evaluated. There are many ways to apply the planning and evaluation model, but some things to consider are:

- Progress iteratively with feedback At the highest level, the purpose might be the organization's mission. The purpose of each project, practice, service, or team should support that mission. In some cases, the purpose of an activity might be the objective of another activity. When defining purposes and objectives at different levels, feedback from the lower levels should be used to ensure that planning is realistic.
- Think and work holistically For a particular objective, consider which metrics will, together, most accurately indicate success. A single metric is unlikely to provide a holistic view of success or failure.
- Keep it simple and practical Over-measuring can be as bad as under-measuring. Use the planning and evaluation model to help define truly meaningful metrics, instead of measuring anything and everything that can be measured.

4.2.2.2 Balanced scorecard

The balanced scorecard model was originally developed by Kaplan and Norton in the early 1990s. Its original purpose was to define measurements and metrics. However, it is now commonly used as a framework for planning and management. The balanced scorecard gives executives visibility of measurements that impact the organization's strategic objectives, leading to the identification of opportunities for improvement. It can be an integral part of an organization's planning activities.

The balanced scorecard attempts to balance four different perspectives that contribute to achieving the organization's vision and mission. It is important to note that, in the traditional balanced scorecard, the term 'customer' is used more generally than it is in ITIL. When the term 'customer' is used in this model, the ITIL term 'service consumer' may be assumed.

Table 4.4 The four perspectives of the balanced scorecard

Perspective	Description
Customers	This perspective recognizes the importance of customer experience and customer satisfaction.
Financial	This perspective focuses on the traditional management of finances that every organization should include.
Internal (business processes)	This perspective helps to understand the health of the organization's internal workings. It can be a good leading indicator of future performance.
Innovation (learning and growth)	This perspective is closely linked to continual improvement. It includes training and development, management of knowledge, and other approaches that ensure the organization can develop.

The balanced scorecard relies on metrics, which must be developed for each of the four perspectives. This will ensure a good balance, without too much focus on one area. It is important to limit the number of metrics included in balanced scorecard tracking. If too many are tracked, there is often little improvement because of limited resources. Each perspective and its relevant selected objective will be supported by at least one key performance indicator (KPI), which can be tracked over time. To support the balanced scorecard, good KPIs will:

- prove whether a strategy is working
- show the degree of performance change over time
- focus attention on the things that matter for success
- allow the measurement of accomplishments, not effort
- provide a common language for communication
- reduce uncertainty.

4.2.2.3 IT component-to-scorecard hierarchy

Measurements of IT components' performance can be used to calculate service performance. This can guide the design of some automation in reporting, as there are tools available that will take these measurements and do the calculations automatically. However, it is important to ensure that the user experience matches the data. Statistics that appear to be good do not guarantee that users are deriving the intended value from the service.

Organizations should always consider what a measurement means for the end-to-end value creation for the service consumer, not just for the performance of a specific component. The ultimate measure of success is in the performance of the service as a whole.

4.2.2.4 Organizational improvement cascade

Organizations need to measure performance to multiple levels. Typically, this will include measurements for the:

- organization
- business units
- departments
- teams
- individuals

An organization needs to define metrics at all the levels that are appropriate to it.

Objectives at each level of the organization should support the objectives of its higher levels. For example, objectives set for an individual should support the team's objectives. That team's objectives must support the department's objectives. They will cascade up and ultimately will support the organization's objectives and mission.

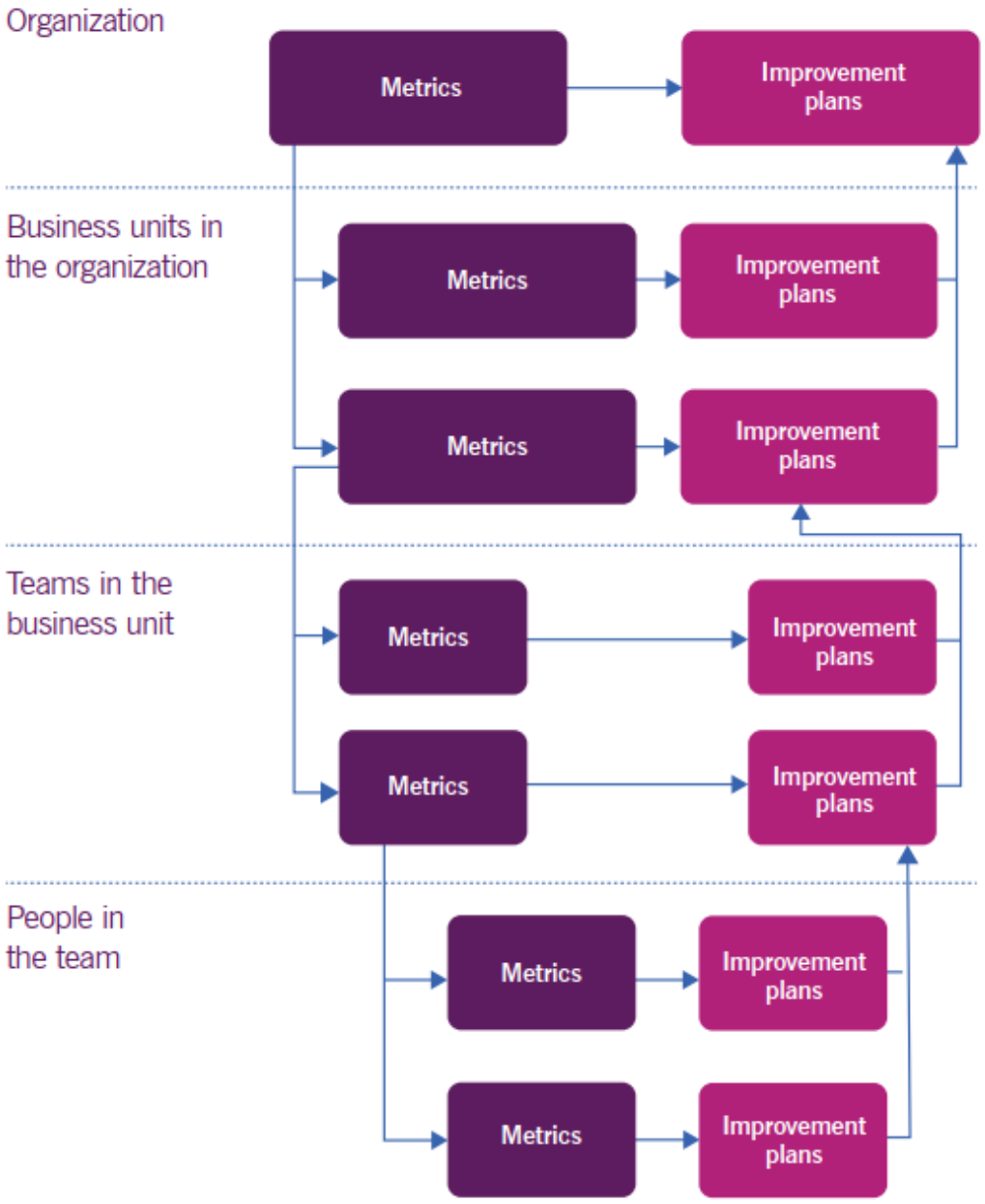


Figure 4.3 Organizational improvement cascade

This hierarchical approach to measuring and reporting at multiple levels creates opportunities to identify potential improvements at every level of the organization. This can lead to an entire hierarchy of improvement plans that will contribute to improving value throughout the organization. Figure 4.3 shows how measurement can drive improvement plans at each level, cascading to higher-level improvement planning.

This needs to be approached iteratively, with metrics supporting higher-level metrics and improvement plans supporting higher-level improvement plans. There are likely to be multiple metrics and improvement plans at each level.

4.2.3 Success factors and KPIs

There is often confusion about success factors and KPIs and how they are related. Some see them as interchangeable, but they are not. Success factors and KPIs define what needs to be measured.

4.2.3.1 Success factors

A success factor describes a condition or characteristic that must be achieved for something to be considered successful. When the success factor relates to an ITIL practice, it is called a practice success factor (PSF).

Several success factors usually need to be achieved for a fully successful result. For example, the change enablement practice includes the following PSFs:

- ensuring that changes are realized in a timely and effective manner
- minimizing the negative impacts of changes
- ensuring stakeholder satisfaction with changes and change enablement
- meeting change-related governance and compliance requirements.

These PSFs are defined in such a way that the organization can further define their intent. For example, what does ‘in a timely and effective manner’ mean to the organization? The answer is reflected in what the organization chooses to measure, namely the KPIs, to validate the achievement of the PSF.

4.2.3.2 KPIs

Success factors should be measurable. Metrics that are used to indicate the fulfilment of success factors are important, hence the name: key performance indicator.

ITIL4 suggests some metrics for the PSFs. For example, metrics for the change enablement practice PSFs include those shown in Table 4.5. As with any indicator, in order for a metric to be used as a practice KPI, an organization should define a target and weighting for it, to reflect its objectives and context.

When an organization defines KPIs for each success factor, it is an indication that those KPIs will provide evidence of achievement, or lack of it.

Table 4.5 Examples of metrics for the change enablement PSFs

Practice success factors	Metrics
Ensuring that changes are realized in a timely and effective manner	Change success/acceptance rate over period Timeliness processing index (TPI) for individual changes Aggregated TPI over the period Average time of change realization per change model Change initiators' satisfaction with change timeliness Change initiators' satisfaction with change outcomes
Minimizing negative impact of changes	Number and duration of change-related incidents Business impact of change-related incidents Impact of changes identified as sources of problems/errors
Ensuring stakeholder satisfaction with changes and change enablement	Stakeholder satisfaction with change enablement procedures and communications Stakeholder satisfaction with realization of individual changes
Meeting change-related governance and compliance requirements	Number and criticality of change-related audit findings and non-compliances Compliance to formally stated requirements, according to audit reports Number and impact of change-related compliance incidents

4.2.3.3 Leveraging SMART

When defining KPIs, some organizations leverage the SMART (specific, measurable, achievable, relevant and time-bound) model. There are many ways to leverage SMART, depending on the situation.

Table 4.6 The SMART model

Abbr.	Criteria	Explanation
S	Specific	Clarity on what is needed or intended is critical. The factor being evaluated must be defined in such a way that there is very little room for misinterpretation or misunderstanding.
M	Measurable	It should be possible, either directly or indirectly, to measure the factor being evaluated. For a metric, this concept seems clear and the measurement is direct. In some cases, the only way to 'measure' an objective is by critically analysing associated indicators.
A	Achievable	Setting an unrealistic objective is unproductive. Those working towards the objective must believe that it is achievable if they are to maintain their commitment and focus.
R	Relevant	Any factor being evaluated must make sense relative to desired outcomes.
T	Time-bound	Everyone involved should understand the timeframe for achieving the factor being evaluated. A measurement or metric defined in alignment with the SMART method should not be open-ended.

Often, success factors are aspirational, directing the organization to reach beyond what is merely acceptable. In these cases, KPIs are used to measure progress towards the desired state, and the aim is for them to trend in the right direction. Other KPIs may be binary in nature: either achieved or not. An organization must determine which approach, or combination of approaches, is appropriate on each occasion.

4.2.3.4 KPI influence on behaviour

Undesirable behaviours can result from measuring the wrong thing. When creating KPIs, consider the behaviours that they may encourage, and select those that will have the desired effect on the service value chain, rather than a cosmetic effect on data.

When KPIs are incorrectly applied, an organization may experience the 'watermelon effect'. This is a situation where all KPIs are being met (green) and the organization believes its

service consumers to be satisfied, when in fact they are unsatisfied, value is not actually being created, and success factors are not being met (red).

When this occurs, it is important to examine the defined KPIs and review whether they are driving the right behaviours. Time-based KPIs are the most likely to lead to the watermelon effect.

4.3 Measurement and the four dimensions

4.3.1 Measurement of organizations and people

The organizations and people dimension covers roles and responsibilities, formal organizational structures, culture, and required staffing and competencies. Measurements for this dimension consider team performance, staff retention, training, and other related metrics. Some organizations use the net promoter score methodology to gauge their workforce's satisfaction, asking, 'How likely are you to recommend our organization as a good place to work?

4.3.2 Measurement of information and technology

The measurements for the information and technology dimension may seem like the easiest to define because so many elements of this dimension are readily measurable. However, measurements should be chosen for value and relevance, keeping the total number of metrics low.

The information and technology dimension includes the information and knowledge necessary for managing services, as well as the technologies and relationships required to manage them. Data is the primary output from the use of technology. It is nearly impossible to run an organization without IT. Monitoring, measuring, and reporting on the enabling technologies that support value creation in all areas of the four dimensions is critical.

Quite often, especially when a service is delivered to many individual consumers, and direct communications with every user are impossible, measurements of technology performance can be used to assess and improve user experience. Examples include the measurement of user interface performance, user transaction times, and connectivity metrics.

4.3.3 Measurement of partners and suppliers

Most organizations rely on external partners and/or suppliers. Therefore, measuring partner and supplier performance is a critical part of successful service management. Transparency, open communication, and an understanding of shared objectives are crucial. Too often, service providers and their suppliers and partners see measurements as a tool for placing blame rather than for information sharing.

The most common measurement for service relationships is performance against the targets in the SLA between the organization and the supplier. A key part of planning is ensuring that SLAs actually meet the organization's requirements. Most SLAs can be adjusted when circumstances change, such as in the cases of new planned services, mergers and acquisitions, or growth in a customer base. It is essential that SLAs are revisited with partners and suppliers when appropriate to ensure that they still meet the organization's changing needs.

Apart from the service performance, criteria for assessing the relationship between suppliers and partners can include:

- compliance with the applicable regulations
- conformance to the agreed terms and conditions of the service agreement
- social responsibility
- assurance of the supplier’ s reliability and agility in meeting the changing needs of the customer.

4.3.4 Measurement of value streams and processes

Measuring the efficiency of value streams and processes should highlight bottlenecks and blockers, and provide information that can lead improvement initiatives. Some of these measurements are purely historical; these are often what leadership wants to see regularly, such as the number of incidents at different priority levels, or the number of successfully completed changes.

4.3.4.1 Lagging and leading indicators

Lagging and leading indicators help organizations to understand historical performance and predict future trends.

- Lagging indicators Metrics that report what has already been achieved. Lagging indicators appear in SLA reports and may be used to report historical trends.
- Leading indicators Metrics that help to predict what is likely to happen in the future. Leading indicators are often difficult to measure, but fairly easy to influence. There is usually a strong cause-and-effect relationship.

Lagging indicator metrics are most likely to be requested by leadership, but leading indicator metrics provide information that can be acted upon to improve future performance.

4.3.4.2 Process metrics

Processes can be measured using the types of measurements described in section 4.2. A process’s maturity and current status help to determine useful measurements and metrics. For a new process, determining how much of it is in place (represented by progress metrics) and checking whether people are doing what is expected (represented by compliance metrics) are crucial.

As processes mature, emphasis should shift to whether the organization is getting the required outputs (represented by effectiveness metrics), and then to efficiency. An organization that monitors efficiency too soon may create more issues than it solves. Attempting changes before the process is embedded can hamper its effectiveness. As efficiency and effectiveness metrics are added, the organization should reduce the number of progress and compliance metrics in use, so that it does not measure too much.

4.3.4.3 Flow efficiency

When examining process performance, reviewing flow metrics will help with understanding how efficient processes are. Some key metrics are:

- Work in progress (WIP) This is a measure of unfinished work items. The WIP metric highlights the progress being made towards reducing the WIP queue.

- Cycle time This is a measure of the time between a work item starting and finishing. It is a lagging indicator of flow, and helps to drive improvement work and manage expectations about how long certain work items will take.
- Throughput This is a measure of the number of work items finished in a period of time.
- Work item age This is a measure of the amount of time active items have been in progress. It is a leading indicator for unfinished items, and highlights bottlenecks or blockers.

4.4 Measurement of products and services

The value of products and services should be measured wherever they are consumed, and measurements should account for utility, warranty, and experience.

Utility is a functionality offered by a product or service to meet a specific need. To provide utility, a service should either support the performance of the consumer or remove constraints from the consumer. Many services do both.

Warranty is assurance that a product or service will meet agreed requirements in agreed circumstances. It often relates to service levels aligned with the needs of service consumers. Warranty may be based on a formal agreement, or it may be a marketing message or brand image. It usually addresses such areas as service availability, capacity, levels of security, and continuity.

Experience measurements may include metrics of user satisfaction, service consumption performance, and service interface performance.
When measuring the quality of products and services, organizations must think in terms of outcomes, and consider how failing to meet agreed targets will affect customers and users. Methods that provide measurements related to customer or user satisfaction and the performance of products and services include net promoter score, customer effort score, and social media monitoring.

4.4.1 Net promoter score

Net promoter score (NPS) is a way of measuring customer and user loyalty. It is an alternative to traditional customer satisfaction surveys. Developed by Fred Reichheld, Bain & Co., and Satmetrix, NPS was introduced in the Harvard Business Review (Reichheld, 2003), and its supporters claim it correlates strongly to revenue growth.

NPS is calculated based on the response to the question ‘How likely is it that you would recommend our company/product/service to a friend or colleague?’ The scoring is normally based on a 0–10 scale. Respondents who score 9 or 10 are promoters: people who can be expected to display value-creating behaviours, such as re-purchasing, referrals, or long-term product loyalty. Those who score 6 or below are detractors: less likely to demonstrate value-creating behaviours. Those who score 7 or 8 are passives: people with no impact on the overall NPS. The NPS is calculated by subtracting the percentage of detractors from the percentage of promoters. For example, in a survey of 100, if 63 per cent were promoters, 12 per cent detractors, and 25 per cent passives, the NPS would be 51.

Additional questions are normally included in the survey, intended to develop greater understanding of the perception of various products or services. Commonly, NPS surveys

ask, ‘Why did you give this score?’ The answers provide valuable insight into the specifics of customer satisfaction and help organizations to address areas that will have the most impact on improving the NPS results.

4.4.2 Customer effort score

Service consumers judge many aspects of service provision, including how easy it is to use the services. They want to experience a service’s promised benefits while expending the least possible amount of their own effort.

Customer effort score (CES) was introduced in the Harvard Business Review (Dixon et al., 2010). It is calculated based on the response to the question ‘How much effort did you personally have to put forth to handle your request?’ A low CES has been shown to be a strong predictor of repeat purchasing and/or increased spending.

Service provider organizations can use CESs, combined with measurements of repeat calls, transfers, and other factors, to highlight areas where service consumers need to try too hard to derive value from a service.

4.4.3 Social media monitoring

Unhappy service consumers are increasingly likely to use social media channels to express their opinions of a service provider. Hence, organizations can use these channels to collect their customers’ and users’ unfiltered opinions.

Successful organizations recognize the importance of social media as an indicator of potential problems, and devote resources to monitor and harness these channels for promotional purposes. Other potential advantages of leveraging social media include:

- Bi-directionality Organizations can directly interact with customers and users, allowing them to reduce or recover from negative perceptions.
- Timeliness Social media interaction can occur during ongoing service interactions. For example, airline passengers may post online during an extreme flight delay, resulting in an immediate response from a service provider employee.
- Scope of communication By using social media to interact with customers and users, service provider organizations can reach a much wider audience than with traditional forms of communication.
- Cost-effectiveness Resources are needed for social media interactions, but the costs can be much lower than for other forms of communication.

Every interaction with customers and users via social media should be measured to understand its value and any other potential uses.

4.5 Summary

The use of measurement and reporting for the ongoing management of the organization and its services is essential for driving effectiveness and efficiency. Measurements enable fact-based decision-making, reducing risk and supporting the guiding principle ‘collaborate and promote visibility’.

5 Continual improvement

5.1 Creating a continual improvement culture

Any improvement is a change, and change must be managed carefully. It is important to consider how changes may impact an organization's culture.

Implementing individual improvement initiatives will not have the same positive impact as embedding a commitment to continual improvement into the organization's culture. In almost every case, an organization with a strong culture of continual improvement will also have a strong governance capability that allows it to allocate resources and provide the management and leadership necessary for successful improvement initiatives. The ways improvements are planned and delivered should also be subject to continual improvement.

Successful continual improvement cultures are balanced. Momentum must be maintained, but it is important not to follow a successful initiative with many more at the same time. Working steadily, without overloading the organization with multiple large-scale improvements, will preserve interest and excitement without creating unnecessary stress or backlash.

Most employees see formal improvement initiatives as above and beyond their regular responsibilities. Hiring employees specifically to facilitate continual improvement can support other teams, making it easier for them to participate and feel respected for their contribution. This, in turn, will reinforce the importance of continual improvement and help to embed it into the culture.

5.2 Continual improvement of the service value chain and practices

A service value chain can be seen as a set of building blocks that can be combined in any order to create value streams. Improving the service value chain may involve making small improvements to a building block that will increase its value to one or more value streams. However, it is important to consider an improvement's impacts across the entire value chain and associated value streams. Value stream maps can be useful for understanding the interdependencies involved.

Understanding how to improve practices involves understanding how they contribute to the service value chain. If a practice's objective is not consistently achieved, or if a practice is not performed effectively or efficiently, the value chain activities to which it contributes are likely to suffer.

5.3 Continual improvement in organizations

Organizations are not static entities. When one objective is met, it is important to look for another opportunity to improve and plan how to get there. This is true throughout organizations: there are as many opportunities for improving leadership practices as there are for operational practices.

Continual improvement is everybody's responsibility. Everyone who contributes in any way to the provision of a service must constantly look for improvement opportunities, because the scope of improvement is the entire SVS.

The continual improvement practice aligns an organization's practices and services with changing business needs through the ongoing improvement of products, services, practices, and the management of products and services.

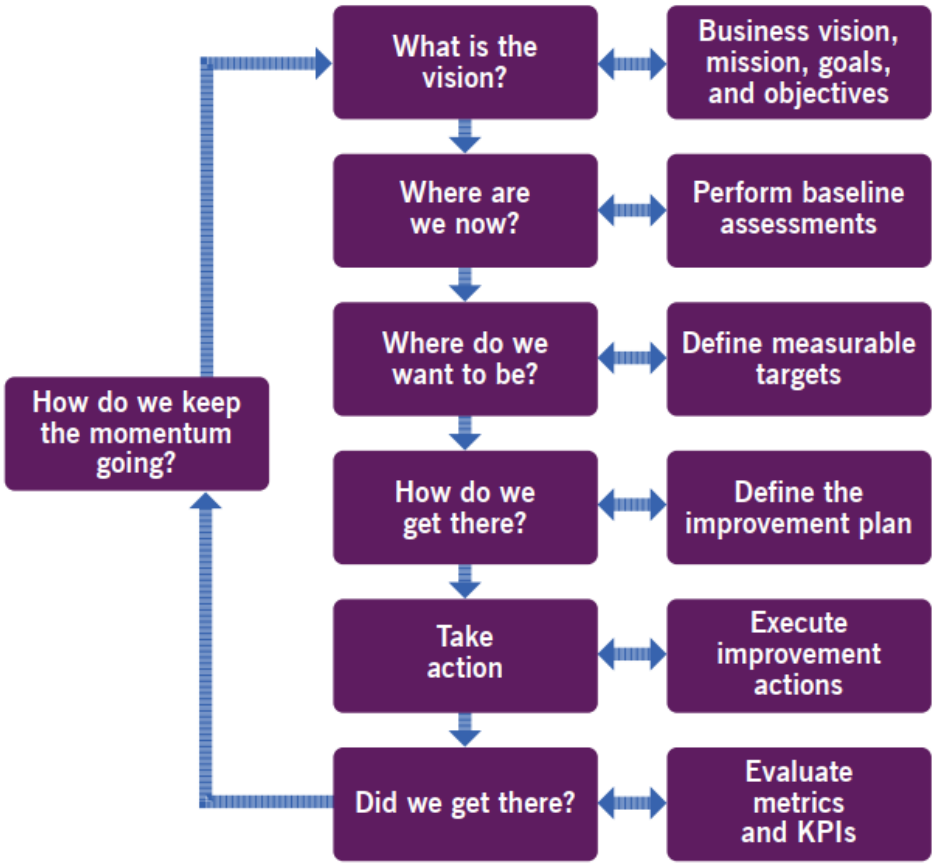
Improvements can be implemented at any level, from individuals to teams and even to the entire organization. For example, a service desk operator may see an opportunity to improve the scripts used to gather information from customers and users. In this case, the operator should work with their manager to improve the service desk practice. However, individuals and teams involved in improvement initiatives must understand what success will look like, and help to define and agree the objectives that must be achieved for that outcome to be met.

5.4 The continual improvement model

The ITIL continual improvement model, introduced in ITIL Foundation and shown in Figure 5.1, is a high-level guide that supports improvement initiatives. When this model is used, improvement initiatives are more likely to succeed. The model focuses on service consumer value, links improvement efforts back to the organizational vision, and promotes an iterative approach to improvement.

Each organization should adapt the continual improvement model to suit its own culture and objectives. The model is designed to be flexible and simple, working well both in Agile environments and in traditional waterfall cultures. It can be used as an aid to any improvement, but is best applied to a specific improvement initiative; it is not designed to define an improvement strategy for the entire organization.

Because improvement journeys are not necessarily linear in nature, the continual improvement model is not intended to be rigid. It is a framework to guide those engaged in continual improvement and help them to avoid wasteful mistakes. Change agents do not always complete one step before moving on to the next, and they can and should revisit earlier steps of the model where necessary.



5.4.1 Step 1: What is the vision?

In this step, individual improvement initiatives are aligned with the organization's objectives, which are derived from its vision and mission, and a vision for the improvement initiative itself is defined.

It is important to regularly reassess an initiative's progress and compare it with the organization's vision and strategy. An initiative that seemed to support a vision in its infancy may have transformed into something that is no longer valid or appropriate.

At the conclusion of Step 1, change agents should:

- understand how the organization's vision, mission, and objectives translate for the specific business unit, department, team, and/or individual acting as the change agent(s)
- have a high-level vision for a planned improvement or improvement area, including:
  - an agreed high-level direction for the improvement effort
  - a description of the planned improvement initiative, in the context of the change agent' s scope of control and the improvement vision
  - a clear understanding of the relevant stakeholders and how they are involved in the initiative
  - the value expected from the planned improvement
- agree on next steps to validate, scope, and plan the details of the improvement initiative.

5.4.1.1 Visions for planned improvements

When planning improvement initiatives, change agents often have a potential improvement in mind, or else they want to target a broad area in which they know improvement opportunities exist. Their ideas may originate from a continual improvement register, meeting notes, management directives, development logs, problem management records, or other sources.

If change agents start with a target improvement in mind, it is extremely important to confirm the initiative's validity by aligning it with the organization's vision. If, however, they want to target a broad area, change agents should envision an improved future state for the area under their control, one aligned with the organizational vision, and identify the changes that must occur to progress towards that future state.

A shared vision is the most important part of any successful improvement initiative. A vision that is decided without input from the relevant levels of the organization is unlikely to inspire the support needed to drive the requisite changes that will make it a reality

Although not everyone can control organizational vision, anyone can define a vision for areas in their scope of control, so long as it aligns with the organizational vision. Some people may feel that they cannot drive change to help progress towards the organizational vision, but that is rarely true. Improvement ideas can come from any part of the organization, and employees at the operational level frequently have the best ideas.

All improvement initiatives should have clear objectives that communicate the intent of the improvement, the expected value, and the proposed direction. Anyone who is responsible for a change should be able to describe the desired future state and criteria for success. Objectives should be concise, future-focused, achievable, clear, and inspiring. Initiatives that clearly align with the organizational vision and which have defined, iterative objectives are much more likely to be supported by stakeholders.

5.4.2 Step 2: Where are we now?

If the current state is not understood, it will be almost impossible to define what needs to be done to move to the future state. Documenting the current state involves establishing current state metrics so that progress to the new state can be demonstrated objectively.

At the conclusion of Step 2, change agents should have:

- a clear understanding of the current state of the improvement area of focus
- baseline measurements and metrics of the current state to be used for later comparison.

5.4.2.1 Assessments

Assessments are used to measure, analyse, and understand the behaviours and performance of practices, processes, services, technology, and people. A good assessment will do more than identify gaps and issues; it will identify what is being done well and show how successes can be leveraged. It is crucial that all four dimensions of service management are assessed. Anyone in an organization can assess the current state of an area in their scope of control.

All stakeholders need a common understanding of the assessment's objectives; otherwise,

it will be difficult to get usable results that match the need. The depth of focus and effort put into assessments should be guided by the size of the improvement; but, because even a seemingly small initiative may have a wider impact, the assessment step should never be ignored.

Change agents must select the appropriate method for each assessment based on its objectives and an understanding of each method's constraints. In many cases, it will be appropriate to use multiple assessment methods during an improvement journey. When selecting the assessment method, it is important to consider what information must be gathered, from whom, and the levels of accuracy and detail needed. The methods selected should align with delivering against those requirements.

5.4.3 Step 3: Where do we want to be?

The current state is an improvement journey's starting point. The next step is to look to the future and decide where to go next. This step is not about defining an absolute, perfect end state; improvement is not a finite journey. This step is about defining the next state, the next logical stage in a continual improvement journey. It is wise to take small, iterative steps. If improvement objectives are too far away or seem impossible to achieve, it becomes more difficult to implement change.

At the conclusion of Step 3, change agents should have:

- a description of the desired future state
- the results of a gap analysis, demonstrating current deficiencies
- a prioritized list of improvements with associated smart objectives and balanced KPIs, where possible
- the tools to create a detailed action plan
- a clear understanding of the constraints that may influence what can be improved
- a business case for the improvement initiative
- high-level agreement on the improvement that is to be undertaken
- agreement from stakeholders to go forward with the proposed improvements and any associated priorities.

5.4.3.1 Prioritizing and scoping outcomes

After the current state has been assessed and the desired outcomes defined, the outcomes need to be prioritized and scoped. Defined outcomes should all contribute to the achievement of the desired state, but some will be more critical than others, and implementing changes in a particular order may facilitate certain outcomes. Some outcomes will need different approaches to achieve and some will require significant investment, while others will be achievable with minimal effort. Desired outcomes need to be defined in measurable terms.

Improvement outcomes can positively impact many areas, including by reducing costs or risk or by improving compliance with regulations. When prioritizing these outcomes, consider what their impacts are likely to be on moving the organization closer to achieving its vision. Outcomes that have bigger positive impacts in this context should be prioritized over others.

5.4.3.2 Making the business case and reaching agreement

Moving forward with improvements is likely to require agreement, not only from change agents but also from those responsible for authorizing the required budget and time allocation. It may be necessary to produce a simple business case to outline the proposal and gain approval.

5.4.4 Step 4: How do we get there?

Once the current state and the desired state have been defined, the next step is to create an action plan. An effective action plan should answer several questions, including:

- Do any of the changes need to be completed in a specific order?
- Are there any quick wins that can be delivered early to give rapid customer value?
- Are there any resourcing constraints that will dictate the flow of changes?

If, when planning the improvement, new information that might impact stakeholders' expectations or support is revealed, change agents may need to go back to Step 3 and re-engage with the stakeholders.

At the conclusion of Step 4, change agents should have:

- an approved action plan, aligned with stakeholders' requirements for governance
- an understanding of the nature of the improvements and the most efficient method to be used to reach the expected results.

5.4.4.1 Creating the action plan

Depending on the improvement's size, established methods or requirements in an organization may govern how the planning and delivery of improvements are conducted. Change agents should ensure established policies are complied with and should leverage existing artefacts, such as tools and templates, if they exist. The plan should be designed to be efficient and lightweight, while ensuring that stakeholders have the required levels of visibility and control and that any regulatory requirements are considered.

Whatever work method is used, the improvement plan should account for the work of the previous continual improvement model steps. The relevant vision, results of assessments, desired objectives, contents of the business case, and expected outcomes are all examples of valuable inputs to the improvement plan.

Working iteratively

Managing an improvement initiative does not necessarily mean starting with a complicated Gantt chart or detail-laden project plan. The continuous delivery of small improvements is preferred whenever feasible. Even initiatives that require a sustained effort may be better implemented in shorter iterations, to highlight progress and so that natural checkpoints can be leveraged for reviewing feedback and, if needed, revising the approach.

In complicated environments, it is common for an organization to be unable to define one specific plan to achieve the target state. Instead, a series of safe-to-fail experiments can be planned to test hypotheses and choose the right option.

For organizations with less experience of this way of working, it is likely that people will need

to adjust to Agile, iterative ways of working. Delivering value through quick wins can be a good way to introduce Agile methodology into organizations.

Incorporating feedback and metrics

Incorporating feedback mechanisms and activities throughout the improvement plan will ensure that feedback is solicited and evaluated. As part of ongoing stakeholder management, it is important to define the type of feedback needed from stakeholders at each stage, and how that feedback will be collected, actioned, and reported.

It is also important to leverage the work done in Step 3 by including a simple, practical metrics programme in the improvement plan. If the organization's standard project management methodology includes required metrics, these must be accommodated. More important to the success of improvement, however, are clearly defined metrics that can be used as targets during the project, and as measures of success after the improvements have been implemented.

5.4.4.2 Communicating and agreeing the plan

Once the plan has been designed, it can be presented to the stakeholders, which helps to set expectations. Depending on the nature of the improvement, it may be within the change agent's scope of control to decide to proceed. If approval is needed, however, once the plan has been signed off, the work on the improvement can begin. A stakeholder communication plan can help to design and track the communication activities required to successfully prepare and deliver the presentation. Those stakeholders with the authority to approve the plan are likely to need a different level of detail about it than those who simply need general awareness.

5.4.5 Step 5: Take action

During this step, the plan comes to life and the work gets done; however, it may be necessary to revise the plan if action does not produce the desired results. It is also necessary to regularly validate the assumptions upon which the plan was based, and to actively manage the identified risks and stakeholders.

If a safe-to-fail experiment approach was chosen in Step 4, experiments are conducted to provide feedback for further planning. In some cases, this may lead to a review of not only the plan but also the target state.

At the conclusion of Step 5, change agents should have completed the improvement actions by leveraging the previously communicated and approved action plans.

It is important to remember that there may be several individual improvement iterations occurring in parallel. The governance methods in use should accommodate efficient management of improvement activities of many types.

5.4.6 Step 6: Did we get there?

The purpose of Step 6 is to confirm whether the desired future state has been reached, going beyond anecdotal evidence and utilizing data analysis to confirm the new status and the value delivered by the changes. Too often, it is assumed that an initiative' s expected benefits have been achieved, and the organization moves on to the next initiative. An accurate understanding of what has and has not been achieved is crucial for future planning.

At the conclusion of Step 6, change agents should have:

- verified results from improvement initiatives and objectives
- a documented improvement review.

5.4.6.1 Conducting an improvement review

For each iteration of an improvement initiative, the progress and value delivered need to be checked and confirmed. This is done through an improvement review, sometimes called a benefits realization review.

Definition: Improvement review

An evaluation using metrics and other evidence to determine whether an improvement has achieved its desired outcomes and, if not, what needs to be done to complete the work.

Questions about progress and value can only be factually answered by using metrics to validate success or to confirm that something is lacking. The agreed success factors and KPIs need to be checked and the delivery of value confirmed. In addition to metrics, more subjective evidence, such as stakeholder reports or opinion surveys, may be considered. If the expected benefits have not been delivered, the improvement plan will need to be revisited, and changes will need to be made before the next iteration.

For complex improvement projects, an improvement review may be a formal, highly structured activity, but even simple improvements of short duration should be reviewed.

If the improvement plan included sufficient activities for monitoring and validating progress, and if it allowed for regular revisions, the improvement review should not uncover significant surprises. However, it is not unusual for lessons to be uncovered during an improvement review that lead to more effective future improvement efforts. These are an incidental by-product of the improvement review, not its primary output. A lessons-learned analysis is more properly a part of Step 7.

5.4.7 Step 7: How do we keep the momentum going?

Improvement must be continual to keep pace with the needs of the organization and to ensure that services and the SVS used to create and deliver them continue to provide value. The aim should be to create a culture where continual improvement is part of normal work. When continual improvement is embedded in the organization, people at all levels will constantly look for improvements that can help it progress towards its vision, and the risk of overwhelming transformation efforts being necessary in the future is mitigated.

If an improvement delivers the expected value, the initiative's focus should shift to marketing the successes and reinforcing any new methods introduced. This ensures that progress will not be lost, and builds support and momentum for the next improvements.

At the conclusion of Step 7, change agents should have:

- confirmation that the implemented improvements are firmly established
- a list of recommendations for additional improvement initiatives or iterations
- a documented lessons-learned analysis that records thoughts on how to implement improvements better in the future.

5.4.7.1 Identifying additional improvement opportunities

Even when all of an improvement initiative's objectives have been achieved, there is always more scope for improvements to be addressed. Change agents will carefully manage the scope of their improvement initiative when it is in progress, in order to maintain focus and improve the likelihood of success. This typically means that improvement ideas that arise during Step 5 cannot be integrated into that iteration of change. These ideas should be documented and considered for future action. Additionally, ideas that arise during Steps 1, 2, and 3 should be documented for potential future action, usually in a continual improvement register.

In this final step, change agents and other stakeholders should compile their recommendations regarding next steps and improvement priorities. Their participation in the current initiative will give them a valuable perspective on which future improvement ideas will best build upon the current ones, as well as which may be easily implemented from the new current state.

5.4.7.2 Identifying and evaluating lessons learned

Like every other practice, the continual improvement practice must be reviewed and is subject to continual improvement. By analysing the success or failure of change initiatives, it is possible to see what can be improved and what was particularly successful. The findings from this exercise can be applied to future improvement activities.

> Definition: Lessons-learned analysis
>
> The evaluation of an improvement initiative or iteration for the purpose of understanding what did or did not go well and what should be done differently in the future in similar circumstances.

Lessons may be learned at any point during an improvement initiative. When mistakes are made, they should be corrected, but the lesson learned should also be documented at that time.

5.5 Using measurement and reporting in continual improvement

Measurement and reporting contributes to every aspect of continual improvement. Table 5.1 gives examples of prominent contributions this practice makes across the continual improvement model.

Table 5.1 Measurement and reporting contributions across the continual improvement model

Continual improvement model step	Contribution of measurement and reporting
What is the vision?	Reports providing data about the organization's competitiveness and its performance against competitors may inform discussions on the vision and how individuals and teams are impacted by it. Data about past performance in the high-level areas that are proposed for improvement action may help when selecting a more specific improvement area.
Where are we now?	Data and other evidence regarding the target improvement area are collected and processed into metrics and information to provide the basis for the assessment of the current state.
Where do we want to be?	Current and historical measurements are analysed to identify specific improvement opportunities. Metrics to support the business case are developed. SMART objectives for each improvement are defined, including measurable targets against which improvement progress is validated.
How do we get there?	Methods for measuring and managing the improvement initiative are included in the action plan. The exit criteria that need to be achieved at each stage are agreed.
Take action	As improvement efforts proceed, the work is measured and reported to relevant stakeholders. If measurements show implementation issues, changes are made and new measurements are taken.
Did we get there?	The target improvement area's actual performance in the new state is compared against the previous state to validate the improvement. Reports for the implementation review and closure are produced.
How do we keep the momentum going?	Measurements of improvement achievements are used to market success to the organization and stakeholders. New behaviours are monitored and reported to ensure that improvements do not erode over time.

5.6 Summary

By embedding a commitment to continual improvement throughout the organization and every element of the SVS, organizations can respond better to changes and increase their ability to contribute to the co-creation of value alongside stakeholders.

Regardless of the maturity of organizations, continual improvement should be a major part of every SVS. All four dimensions of service management are subject to continual improvement. Technology is changing constantly, and the way services are delivered needs to keep pace with these changes. A strong continual improvement practice, one that is being continually improved itself, is the key to maintaining and increasing the value that the service provider contributes to its service consumers and other stakeholders.

6 Communication and organizational change management

The provisioning of IT-enabled products and services is not just an exercise in the manipulation of technology: it is a human endeavour. Every aspect of service provision performs better with good communication and more attention to human factors. Problems can often be traced to incorrect, mismatching, or mistimed information. People need help to adapt to and thrive in changed organizations. This chapter will cover key principles and methods of communication and organizational change management (OCM) and how they are essential to direction, planning, and improvement.

6.1 Basics of effective communication

Good communication is fundamental to almost every human endeavour. It is important to consider how organizations and people can develop and deploy communication to the best effect as part of their service management work. You are encouraged to take this basic guidance and develop it with continual study and practice.

6.1.1 The value of good communication

Good communication is fundamental to success in service management. Its value can be expressed from two perspectives: the costs stemming from its absence, and the benefits gained through its achievement.

Poor communication can ruin good plans and can lead to waste through disagreements, misunderstandings, and a lack of important information. Examples of the costs of poor communication include:

- unmet service consumer needs
- delays and missed deadlines
- service consumer dissatisfaction
- unnecessary expense
- slow restoration of service
- wasted time and rework
- inability to improve services.

Value streams, practices, and projects do not succeed without people collaborating and coordinating. Good communication enables people to be informed, aware, and able to react quickly to potential issues. Examples of the benefits of good communication include:

- better understanding of service consumers' needs and perspectives
- effective and efficient coordination between people and groups
- clarity of focus on targets and objectives
- working faster while still achieving high-quality results
- more creativity in solutions and improvements
- increased trust

- lower costs while still achieving desired results.

Good communication is about being efficient, responsive, professional, and effective. In many cases, this requires recognizing the intellectual and emotional needs of those with whom an interaction occurs. Communication is a fundamentally human endeavour.

6.1.2 Communication principles

People need to communicate regularly and effectively to achieve the best results; having well-rounded communication skills is crucial. The principles required for good communication can be summarized as follows:

- Communication is a two-way process.
- We are all communicating all the time.
- Timing and frequency matter.
- There is no single method of communicating that works for everyone.
- The message is in the medium.

It is important to remember these principles when presenting information. Considering the audience, differing communication styles, timing, and the medium and mode of communication will help ensure successful collaboration.

6.1.2.1 Communication is a two-way process

Communication is constant, multi-lateral, and pervasive. A communicator cannot assume that their message has been acknowledged and understood. It is their responsibility to ensure that the message's purpose was understood and any actions needed were undertaken. The message's receiver also has a responsibility to confirm that their understanding of the message is correct.

It is useful to employ checks and tests to determine whether the intended meaning of the message has been absorbed. This can be done through a variety of methods, formal and informal. With larger initiatives, it is useful to collect data on the most successful communication media, which can then be used to optimize future communication.

To improve the quality and two-way nature of communication, it is important to research opinions and how people have responded to information sent to or expected from them. Listening and observing are key skills that have a big impact on successful collaboration. People are more likely to engage in meaningful, two-way communication when they see that the other party is making a real effort to listen to their thoughts.

6.1.2.2 We are all communicating all the time

People constantly convey messages, purposely or not, through their body language and tone of voice and, sometimes, by deliberately withholding these signals. There are many statistics regarding how much actual communication is delivered non-verbally. Often, body language and tone have more of an impact than word choice.

Good communicators have high emotional intelligence, which allows them to interpret, understand, and predict people's actions and reactions. Communication requires an acknowledgement of the other person's emotional state, and the use of flexible content and tone to achieve the desired objective.

When progressing large initiatives, it is useful to consider what messages will be conveyed by interactions and events

At an operational level, the concept of setting the tone in a team is useful. This might mean, for example, reflecting the customer base in the backgrounds and experiences of service desk employees. It is important that the team is able to empathize with its customers and users, who are more likely to get in contact if they feel comfortable and cared for.

Everyone should understand how their communication style might impact how they are perceived by colleagues and stakeholders. Successful project managers and change agents should leverage a portfolio of communication techniques to get the best results.

6.1.2.3 Timing and frequency matter

In any successful relationship, good timing is essential. Communication must be proportionate, relevant, and appropriate at the time. For example, raising a minor issue is senseless when everyone is preoccupied with a major incident.

Service providers can make a variety of mistakes when communicating, including:

- failing to respond to heightened activity and priority during key business periods
- sending updates about planned service downtime before it has been agreed with users and/or customers
- reporting great performance statistics when a major incident is occurring
- issuing satisfaction surveys before incidents are closed
- over-communicating to the point where messages lose their impact and get ignored.

To avoid these issues, people should use common sense, tact, and diplomacy and consider the following:

- Develop relationships with service consumers and other stakeholders Good relationships rely on shared goals and open communication, which helps to inform each party of what the other is thinking and doing.
- Understand the bigger picture People are more likely to succeed if they understand other people's perspectives and priorities. Understanding what matters to others informs decisions about the timing and frequency of communication.

Finally, if parties communicate regularly, poorly timed communications are less likely to be necessary. Ad-hoc communications cannot always be avoided, especially in emergencies, but regular communication can reduce the need for rushed contact.

6.1.2.4 There is no single method of communication that works for everyone

Everyone has different preferences for sending and receiving communication. It is good practice to use several techniques to ensure that the intended audience is reached. For example, marketers spread their campaign messages using newspaper, television, and billboard advertisements as well as through promotional events. It is also good practice to tailor your communication to specific audiences, where possible.

It is also important to check that sent messages have been received and understood. Over time, organizations and individuals can observe patterns of effective communication methods based on their audiences and the communication's purpose.

It is useful to be aware of the ways people work and what their individual communication styles are. For example, some people prefer small talk; others strictly factual conversations.

When one method of communication proves ineffective or unpersuasive, it is essential to consider other options for the format and content of the message. Many business cases fail because of poor communication.

6.1.2.5 The message is in the medium

A message's format and nature often evokes an emotional response, which can drastically impact the levels of importance, interest, and understanding that it will be afforded. Therefore, it is important to select a message's format, style, size, and medium carefully, so it is more likely to be read and understood rather than ignored or deleted. For example, an employee-driven blog would be an inappropriate medium to communicate knowledge of an impending series of layoffs; the casual, personal nature of the medium does not match the message's serious nature.

6.1.3 Communication is key for direction, planning, and improvement

As with every other part of service management, the effective use of communication is critical for successful direction, planning, and improvement.

6.1.3.1 Communication in direction

People can only align their actions with the organization's vision and mission when they understand what these things are, what they mean, and why they matter. Using multiple media to communicate these, and embedding references to them in other communications, will ensure broader understanding and adoption.

Many directives are communicated through policies, guidelines, memorandums, or procedural documents. However, publishing these documents does not mean that people are aware of or understand how to use them. New documents should be accompanied by supporting communication, such as emails, blog posts, presentations, and posted links. In some cases, training sessions should be arranged to explain new documents.

Mechanisms should be available to receive questions and feedback on new directives. This will promote deeper understanding and encourage cooperation because employees will feel supported and enabled.

6.1.3.2 Communication in planning

Plans made in isolation are likely to overlook important considerations for success. Also, failing to involve the relevant stakeholders in a planning phase will make them less enthusiastic about participating in implementing that plan.

When planning any initiative, such as a project, improvement, or event, the person leading the effort should communicate with relevant stakeholders and solicit their input. Stakeholders, both internal and external, may have valuable ideas regarding how work should be organized and which methods will be most effective for the effort. Planners should leverage the knowledge and advice of people with previous experience of the kind of initiative being planned.

Draft plans should be distributed to a select audience for further feedback and refinement. Sometimes, others can identify unanticipated risks that need to be addressed, special

resources that may be needed, or significant constraints that the planner was unaware of.

Once the plan is finalized, more communication is needed to prepare the contributors to participate in implementing it.

6.1.3.3 Communication in improvement

The guidance regarding communication for direction and planning also applies to improvement. Additional helpful guidance includes:

- Improvement is continual. Knowledge and information developed in one improvement must be harvested and shared for future improvements.
- Communicating the benefits achieved from improvement is an important factor in engendering support for future initiatives. Classic marketing communication techniques are good to leverage in this context.
- Clearly documenting improvement ideas in continual improvement registers is a good way of ensuring that these ideas are not lost and can be considered for potential future action.

6.1.4 Planning communication

Communication activities, like any other activities, can be planned. For large projects and service operations, planning should be organized in a structured way. A simple communication plan should answer the following:

- What message needs to be communicated, and to whom?
- What is the purpose of the message?
- What is the best format and media for the message?
- When and by whom does the message need to be sent?
- Is it possible to ensure that the message has been understood?
- How can feedback be encouraged, captured, and acted upon?

6.1.5 Communication methods and media

Many communication methods are available and viable. Some rely on direct in-person contact, and others are remote. Some are real-time, and others involve a time delay. Some are mono-directional, and others are naturally interactive. Table 6.1 outlines examples of communication methods.

Table 6.1 Examples of communication methods

Method	Details	Contact	Timing	Interaction
One on one/face to face	One-on-one interactions are the best way to have good interactions and build relationships. They should always be considered when resolving issues. The development of immersive ambient video-conferencing, along with some simple collaboration tools, has also improved the experience of and opportunities for digital face-to-face interactions.	Direct	Real-time	High
Meetings/workshops	Meetings and workshops are essential tools for progressing projects. All good communicators should know how to run meetings effectively. A meeting's quality and delivery can be a useful gauge of an organization's culture, showing whether it demonstrates professionalism and competence.	Direct	Real-time	High
Telephone	Like a physical conversation, telephone communication can dissect issues and accelerate the exchange of information. It is possible to infer certain aspects of a person's emotional state while using a telephone, through their tone of voice, volume, and language choices.	Direct	Real-time	High

6.1.6 Defining and establishing feedback channels

Because communication is a two-way process, as well as actively eliciting feedback, it is important to ensure that static feedback channels are available and known to stakeholders. These channels could include email, social media, and electronic collaboration spaces. Multiple channels could be needed, based on the type of feedback and the need for privacy or anonymity for those submitting it.

To share feedback, stakeholders must feel secure and confident that it will receive attention. Anonymity might be required to provide the feeling of security; however, in order to address the feedback, it is useful to know the source. Anonymous feedback can be actionable, but it raises some challenges; for example, it is often difficult to collect additional information about the feedback, engage in further dialogue, or reassure stakeholders that their feedback has been addressed. It is often easiest to leave the choice between anonymous and personalized feedback to the stakeholders.

Monitoring feedback on a communication approach is a vital way to ascertain whether messages are being received as intended, and it enables future communications to be refined to better meet the needs of the audience.

Ensure that all feedback gets a response; otherwise, the next time they are asked, stakeholders may be reluctant to provide it.

6.2 Identifying and communicating with stakeholders

Stakeholders are people at any level of the organization with a vested interest in the topic of the communication. Identification of and communication with stakeholders are important aspects of general communication, and are central concerns of OCM.

n any endeavour, it is important to understand the role of each stakeholder or stakeholder group. Different stakeholders will each have different needs, which can be best met if their positions and preferred communication channels are understood. For example, a service

review with a customer might include a simple one-page report and a monthly telephone call, whereas an internal project review may include a project plan update and project governance, discussed in a face-to-face meeting.

The first step in defining a communication plan is to identify and understand the relevant stakeholders. Questions to ask include:

- Who are they?
- What interest do they have in the outcome of the work?
- What is their primary motivation?
- What information do they need?
- How do they want to communicate or receive information?
- What is their current opinion of the initiative?
- Is their opinion based on good information?
- Who, including other stakeholders, influences their opinion?
- If they are not yet positive, what will cause them to support the improvement?
- If it is unlikely that they will support the improvement, how can their opposition be managed?
- Who, including other stakeholders, might be influenced by their opinion?

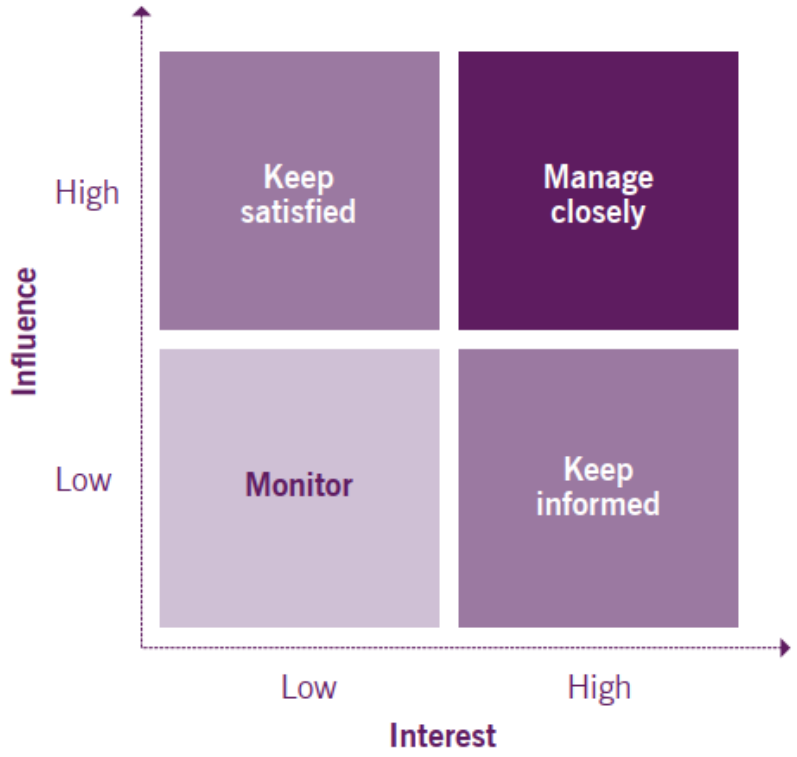
6.2.1 Stakeholder mapping

Once the stakeholders have been identified and characterized, the next step is to assess each one's power, influence, and interest. The aim is to understand the most influential stakeholders in order to understand how they are likely to respond to improvement initiatives and how their support can be won.

A stakeholder map can map stakeholders' levels of influence and involvement, thereby clarifying which ones are likely to oppose or criticize the initiative, and which could be advocates and supporters. Figure 6.1 shows a sample stakeholder map.

Stakeholders can be divided into four categories:

- Stakeholders with high impact and high involvement should be fully engaged with the initiative and satisfied with the improvement.
- Stakeholders with high impact and low involvement should be satisfied with the improvement but only somewhat involved in driving the initiative.



- Stakeholders with low impact and high involvement should be kept adequately informed and engaged in order to ensure the initiative causes no major incidents.
- Stakeholders with low impact and low involvement should be monitored and informed, but do not need to be communicated with about everything.

When defining a stakeholder map, it can be useful to colour-code advocates and supporters in green, opponents and critics in red, and neutrals in orange. This method adds detail to the stakeholder map, clarifying even further which stakeholders it is most important to persuade.

In communication plans, stakeholders are often listed by user personas or group names to reduce targeted communication to a sustainable level. However, when defining a stakeholder map, it is usually better to list individual names or a hybrid of individual and group names. It is best to name stakeholders with the greatest influence individually. Group names should be used whenever the influence relates to the collective rather than the individual.

When identifying stakeholders, it is important to remember:

- Powerful stakeholders' opinions can shape initiatives at an early stage, which can improve the quality of the initiative, and makes it more likely that those stakeholders will demonstrate support later on.
- Gaining support from powerful stakeholders can help win more resources, making the initiative more likely to be successful.
- Communicating with stakeholders early and frequently helps them to understand the nature and benefits of the initiative, which may encourage their vocal support.
- Reactions to the initiative can be anticipated, and actions that will win support can be planned in advance.

6.2.2 Defining a stakeholder communication plan

Once stakeholders have been identified and mapped, it is important to define a communication plan. This process follows six steps:

1. **Planning the approach** The amount of time to be allocated to managing stakeholders depends on the size and complexity of the improvement initiative, the time available for communication, and the amount of help required to achieve the desired results.
2. **Define what is needed from each stakeholder** The amount of support required from each stakeholder should be considered. What actions must they perform?
3. **Identify the message** What will persuade stakeholders to support and engage with the initiative? These messages typically outline the initiative's benefits and clarify key performance drivers, such as increasing profitability. Messages must also include negative consequences; being transparent increases credibility and consolidates the relationship with stakeholders.
4. **Devise a practical plan to communicate with each stakeholder** Understand what the appropriate amount of information for each stakeholder is, and what communication methods will work best.
5. **Keep the initiative's best supporters engaged** Thinking about winning over or neutralizing opposition is good, but it is important not to neglect supporters. Devise a plan for engaging both current and potential supporters.
6. **Consider how actions will affect the stakeholders** Inform people as early as possible of issues that may arise, and discuss how to minimize or manage their impacts.

6.3 Basics of OCM

Organizational change management (OCM) is concerned with the human side of change. It is a structured approach that ensures that improvements are implemented smoothly and successfully, facilitating lasting benefits.

Improvements invariably require people to change, which can include the way they work, their behaviour, or their roles. Regardless of the scope, size, or nature of an improvement initiative, there will be an impact on people. When people understand the purpose of the change and how it will affect them and their job, and when they believe in its importance and benefits, improvement initiatives are far more likely to succeed.

OCM aims to convince people of the value of a change in order to reduce resistance and ensure that it is implemented and sustained successfully. In the process, individuals, teams, and organizations are transitioned from their current state to a desired future state in which the change has been made and is working as planned.

Leading and implementing OCM requires a somewhat specialized skillset. Many organizations seek help from external suppliers, but the accountability for OCM cannot be transferred to an external resource. Someone within the organization must be accountable, even when the responsibility for the activities is delegated.

6.3.1 Essentials for successful improvement

For any improvement initiative to be successful, the five elements outlined in Table 6.3 must be created and maintained. OCM is key to ensuring that this happens.

6.3.2 OCM throughout direction, planning, and improvement

The OCM practice should be woven throughout the work of direction, planning, and improvement. It is almost impossible to be successful in any activity without considering the human factor; the activity of direction, planning, and improvement is no exception.

6.3.2.1 OCM and direction

Previous sections have outlined the importance of establishing a vision and mission, and using these to direct and drive behaviour. In this context, OCM is about addressing the human factor in relation to direction. If an organization wishes to direct its employees to behave in a certain way, perhaps to adopt a new way of working or use new criteria for their own decision-making, OCM principles and methods will help to uncover and overcome resistance to those directives.

Table 6.3 Five elements for a successful improvement initiative

Requirement	Details	How OCM helps
Clear and relevant objectives	To gain maximum support, improvements require objectives that are clear enough for people to understand and which make sense relative to the target organization.	Improvement objectives must be communicated to stakeholders, who should then discuss them. If adjustments are made, their nature and the reasons for them must also be communicated.
Strong and committed leadership	It is critical that improvements are actively supported by leaders within the organization. If their commitments are visible, overall buy-in is likely to increase.	Each sponsor and leader should be identified, and their roles and responsibilities communicated to the initiative's stakeholders.
Willing and prepared participants	People may resist a change for a variety of reasons. However, improvements need participants who are willing to change. People are often more willing to change when they feel they are suitably prepared.	OCM allows for resistance to identified, understood, and overcome using a resistance management plan. OCM uses a training plan to ensure that people have the skills and knowledge to change successfully, and a communication plan to manage change updates.
Demonstrated value	To keep the change moving forward, stakeholders must be convinced of its value before it is achieved, and able to recognize the value after it has been achieved.	OCM runs communication programmes to share any expected and achieved benefits with stakeholders, solidifying their commitment to the current effort and willingness to support future similar efforts.
Sustained improvement	Many improvements fail when people revert to old ways of working. Even when an individual improvement succeeds, organizations can fail to sustain the momentum with more improvement.	The OCM practice seeks to continually reinforce the value of the change through regular communication and the support of sponsors and leaders.

6.3.2.2 OCM and planning

When actions that involve significant change are being planned, OCM efforts should be integrated into the plan. Many plans are unsuccessful because people are not committed to them. OCM plans are typically defined within larger plans, particularly for programmes with multiple sub-projects and broad organizational impacts. However, the application of OCM is not only reserved for large programmes and projects. Even in routine planning at an operational level, individuals should consider the human factor and plan to address it accordingly.

6.3.2.3 OCM and improvement

Without proper OCM, improvements cannot be achieved or sustained, because improvement requires change, and change requires people's participation and commitment.

The OCM practice is involved in improvement in two complementary ways:

- It ensures that the people involved in implementing improvement initiatives do so effectively and efficiently.
- It ensures that the people impacted by changes resulting from improvement initiatives accept and adopt those changes.

Each stakeholder group's contributions to improvement at each level should be understood, and the most effective methods for communicating with them should be defined. Some stakeholders may need to be involved at a very detailed level, whereas others can be involved as reviewers or approvers. The identification and management of stakeholders is a core competency associated with OCM.

6.3.3 OCM throughout the service value chain

Like work, information flows through the service value chain from one activity to another. If this process is disrupted, required inputs may not be received, and required outputs may not be provided.

When a person or team involved in a value chain activity does not get what they need from another person or team, it can lead to frustration and resentment. Employees can then become unwilling to cooperate with each other, which exacerbates the disrupted information flow even further.

The principles and methods associated with the OCM practice, particularly the methods associated with stakeholder management, can be leveraged to address the human factor across the value chain. OCM principles and methods can be especially valuable when establishing and facilitating human interfaces across the value chain.

6.3.4 Resistance to change

No matter how beneficial an improvement initiative will be, it is highly likely that there will be resistance to the planned change. One of the primary functions of the OCM practice is managing this resistance.

Most people resist change because they prefer the known to the unknown. People only accept the necessity of change when they believe that the risk of staying in the current state is greater than the risk of moving forward. If they do not understand the need for the change, they will resist it.

If past change initiatives failed or were poorly managed, people may not feel confident that current initiatives can be effectively implemented. Employees who have experienced a lot of change within the organization may resist new initiatives because they suffer from change fatigue.

When improvement activities are not advertised, with only a small group being aware of the details, assumptions and rumours about the initiative can spread. If employees have to speculate about what will be changing and how it will impact them, they are much more likely to resist the change. Although there are times when information should be withheld, they

should be exceptions to the norm. Change initiatives and their impacts should be made as transparent as possible.

6.3.4.1 Identify resistance

Most people react emotionally to change, rather than rationally. However, the emotional response to a change initiative is unlikely to be uniform across the organization. It is important to help employees to accept change by:

- providing safe feedback channels for employees to comment on the initiative before it is fully underway; for example, via email, social media, or surveys
- listening to objections in both formal and informal contexts
- talking to line managers and sponsors to obtain feedback as to where they believe resistance is coming from
- asking questions, including:
  - Do you know why we are making this change?
  - Do you support the change?
  - Do you have the training and/or support you need with regard to this change?
- observing behaviour and identifying people who claim that they accept the change but find it difficult to transition
- conducting workshops to demonstrate the value of or need for change constructively (a business-simulation game can be a suitable format)
- analysing attitude, behaviour, and culture to explore what factors sustain current behaviour and prevent changes in behaviour.

6.3.4.2 Managing resistance

Various tactics can be used to overcome or reduce resistance to a change, including:

- delivering targeted communication to address concerns
- providing responses to frequently asked questions and making them easily available and up to date
- providing education and training to raise awareness of the need to change, and equipping people with the necessary knowledge, skills, and capability to do so
- involving employees in the improvement initiative: involved employees are more likely to accept the change than oppose it
- being transparent
- leverage storytelling; for example, by talking about the benefits other organizations have realized through similar improvement initiatives
- prioritizing the improvement against other changes, to combat change fatigue

- providing sponsors and line managers with the right messaging and tools, to help them lead employees through the change
- leveraging quick wins; for example, by inviting customers and users to tell success stories about improvement initiatives
- providing support and channels through which people can learn more about the improvement.

One of the most common techniques for preventing or reducing resistance to change is to create a sense of urgency in stakeholders. It is not always enough for people to understand a change; they often need to feel that it urgently needs to occur. A sense of urgency is created by convincing people of the value of a future state and explaining why the current state is damaging or undesirable. A compelling narrative must explain why organizational change is in people's best interests.

6.3.5 Reinforcement: retaining the new state after change

It is important to ensure that those impacted by improvements do not revert to old ways of working, and that the desired state is being maintained. This is called institutionalizing the change.

6.3.5.1 Feedback and metrics

Feedback from people affected by the improvement helps to determine which reinforcement tactics are appropriate.

The feedback may take many forms, including:

- solicited feedback, sought via team meetings, surveys, social media, intranet forms, or informal discussions
- managers' opinions about their employees' attitudes about the improvement
- the change curve from denial to integration (and other emotional responses to change), which can determine where people feel they are in relation to the initiative
- metrics and performance reports, which can help determine whether target groups are complying with the new way of working
- the continual improvement register, which should answer the question 'Was the change fit for use and fit for purpose?', and whose responses can be analysed to determine candidates for future improvements.

6.3.5.2 Actions

When feedback has been gathered, it can be analysed to highlight trends or gaps where reinforcement activity should be focused. Where there is resistance, a resistance management plan, using resistance management techniques, can be introduced to reinforce the need for change.

Communication is crucial for reinforcement. For example, announcing that 80 per cent of the workforce has adopted a new way of working can encourage the remaining 20 per cent to do the same.

Making it harder to follow the old ways of working, and easier to adopt the new, can also reinforce the improvement.

Reward and recognition are strong reinforcement techniques. Reward and recognition for those embracing change can significantly influence those resisting it, encouraging them to accept and adopt new ways of working.

6.3.5.3 Improving and evolving OCM

Developing and maturing expertise in OCM is challenging because it deals with so much that is subjective. Deep expertise in OCM can be reserved for a small group within an organization who can contribute their skills to relevant initiatives. Over time, the successful application of OCM methods should increase commitment to and interest in this practice.

Historically, service providers in the IT space were so focused on the technology side of changes that they neglected investment in the human factor, even though that factor frequently caused change initiatives to fail. Unfortunately, a similar attitude still prevails in many organizations

Forward-thinking organizations should gather empirical evidence of the value of OCM. Comparing the OCM
activities on successful and unsuccessful projects may be a good starting place. To whatever degree possible, it is important to quantify the OCM's contribution to successful projects, giving special attention to those related to deploying or improving products and services.

6.4 Summary

Too often, important initiatives fail or provide less value for stakeholders than they could have done because the human side of the equation was not given due consideration. Communication and the OCM practice are essential elements of any SVS. Organizations should cultivate their skills in these areas, and promote their use wherever and whenever appropriate.

7 Developing a service value system

This chapter will discuss developing an SVS and highlight the ways in which the four dimensions differ, from service-oriented environments to technology-oriented environments.

7.1 Adopting the guiding principles

Although the basic concepts and methods used for direction, planning, and improvement are the same in any organization, their focus and drivers vary depending on the values and principles the organization has adopted. Successful service providers ensure that a focus on value pervades all three activities at every level.

Direction, planning, and improvement should:

- focus on value for the organization, its service consumers, and other stakeholders
- consider the whole organization and its relationships with stakeholders
- focus on end-to-end value streams, rather than isolated practices or projects
- understand the current state, including strengths, weaknesses, opportunities, and threats
- encourage feedback at all levels, and adjust plans and communications based on that feedback
- ensure visibility and share all progress with all relevant stakeholders
- ensure that policies, controls, and guidelines at all levels are practical and easy to understand and follow
- adopt and promote a culture of continual improvement
- explore opportunities to use technology for optimization.

7.2 Centre of excellence for service management

7.2.1 Service management strategy to tactics

Service management is a set of specialized organizational capabilities for enabling value for customers in the form of services. Service-oriented organizations, therefore, need to define strategies for developing their specialized organizational capabilities, and then deploy them with appropriate tactics.

Directing, planning, and improving service management can be done in many ways, depending on the factors driving the organization's vision and mission. The strategy management practice helps to determine those factors by analysing the environment, identifying constraints, agreeing to and establishing shared perspectives,
and translating strategy to tactics.

As discussed in Chapter 2, tactical and operational plans are based on organizational strategy. This moves the focus of the strategy from high-level aspirations to action plans that contribute to realizing the organization's vision and mission. Those action plans should address:

- the nature of the organization' s SVS (to serve as the bedrock of how it functions as a service-oriented organization)
- an embedded understanding of the gaps between its current state and the desired future state
- a prioritized, realistic path for transitioning from the current to the future state.

In this chapter, we will discuss important considerations and associated methods for developing an SVS. It is important to remember the guiding principle of 'start where you are': transformation into a service-oriented organization is a gradual, complex, worthwhile endeavour, and organizations should leverage their existing structures and resources rather than starting again from nothing.

7.2.2 The ITIL service value chain as an operating model

The service value chain is a flexible operating model for service management, allowing for the creative combination of the six value chain activities (plan, improve, engage, design and transition, obtain/build, and deliver and support) into value streams. The service value chain highlights those activities that are involved in value co-creation, in order to understand the capabilities that are under the organization's control and direction. Each activity in a value stream may leverage the capabilities of different combinations of practices along the way, depending on the context.

Attempts to create a unifying operating model have led to approaches that are often process-oriented, and which fail in application. ITIL is not process-oriented: it addresses the value in strategy. This allows an organization, based on its needs, to adopt and adapt the management practices to create unique value streams.

The service value chain provides an adaptive operating model. It allows for the creation of organization-specific operating models that provide unique value propositions for consumers.

The management of products and services is performed through value streams. However, the effectiveness and efficiency of value streams depend on the performance and maturity of the management practices contributing to them. Continual development of an organization's practices enables organizational success through highquality products and services.

Some practices may be institutionalized within the organization and may include dedicated resources, teams, and organizational structures; others may share resources and teams and have no formal structures. Either way, a person or a group responsible for the continual development of important practices and their application across the organization should be identified. These people and groups may form a team known as the service management office.

Definition: Service management office (SMO)

A group or department that functions as a centre of excellence for service management, ensuring continual development and the consistent application of management practices across an organization.

By establishing and empowering an SMO, an organization ensures that its vision and plans for service management will be given the practical, regular attention they require to be successful.

In some organizations, SMOs combine the role of a centre of excellence with that of a management body. In these cases, they provide a means to develop, oversee, and support the parties involved in service management and most of the components of the SVS. They can define and maintain the policies, principles, guidelines, and controls for service management, and mentor and enable those people applying them in the organization. SMOs can monitor the performance and conformance of management activities against the direction provided by governing bodies, and they can examine the activities in aggregate to ensure that they are fit for purpose and use. SMOs of this type are often formalized and have significant authority to drive service management in the organization.

In other organizations, SMOs are less-formal teams focused on continual development of the organization's management practices. Team members act as practice leads and coaches, ensuring that management practices are effectively and consistently applied and integrated in the context of the value streams. They also monitor the development of established and emerging practices in the industry, ensuring that the organization adopts relevant innovations and that its practices are relevant and up to date.

Either way, the SMO's role in promoting and enabling continual improvement throughout the SVS is central to the organization's long-term success.

When introducing an SMO, it may be helpful to:

- follow the guiding principles
- gain the support of an executive leader who understands service management and has a genuine interest in ensuring the SMO is successful
- align SMO activities with those of the project management office, product owners, and other key roles and teams of service management
- continually consider the changing needs of the organization
- consider all four dimensions of service management in all SMO initiatives.

7.3 The four dimensions of service management in the SVS

Organizations develop systems that permit them to function efficiently, focusing on their defined mission. The increasing complexity of the service management environment demands that IT service providers do the same. An organization's SVS, if it was developed with the four dimensions in mind, will enable it to perform its current activities at a high level, respond appropriately to rapid change, and materially transform when necessary.

7.3.1 Organizations and people in the SVS

Service provider organizations constantly interact with other organizations. The organizations and people dimension ensures that these human elements contribute appropriately to the organization's mission when it is integrated into an SVS.

An organization's vision, mission, strategy, and objectives, when defined, lead to the emergence of structures, processes, and roles that support the overall organizational intent. The structures and skilled employees interact with information and technology, participate in value streams and processes, and work with other organizations and people in the form of partners and suppliers.

Once an organizational model has been determined, the capacity and competence of the workforce should be mapped to it. People are a key element of any SVS and are essential for establishing and cultivating the desired service-oriented culture. Leaders play an important role in communicating the direction and plans of the organization so that each person understands and is proud of their contribution.

7.3.1.1 Impact of different organizational structures

An important early decision at the start of a project is how people should be grouped to deliver and improve products and services. Modern thinking proposes that organizational structures are emergent and self-organizing: a natural outcome of common objectives. However, not all teams are able to self-organize in this way.

Several organizational structures can be adopted. Some structures are hierarchical; others resemble a network or matrix. Many organizations structure employees into groups based on their specialized activities, skills, expertise, and resources. Although it is common, this approach can lead to siloed teams who have little or no understanding of what other teams do or how they do it. Structures which rely on cross-functional working can help teams to maintain a shared focus on a product and/or service for which they are responsible, but they can also make a comprehensive portfolio overview difficult to produce, and may result in duplicated effort or even duplicated services.

When selecting an organizational structure to underpin the SVS, it is important to consider factors such as type, size, specialization, and scope of control. It is crucial that an organization identifies which structure best supports its products and services. Lean techniques should be combined with continual improvement practices to assess success factors, and to understand the requirements of the value chain and related value streams in order to reduce waste.

7.3.1.2 Roles and jobs

Unnecessary complexity in organizational structure often results from using the terms ‘role’ and ‘job’ synonymously.

A role is a set of responsibilities, activities, and authorizations granted to a person or team, in a specific context.

A job is a position within an organization that is assigned to a specific person.

A single person may, as part of their job, fulfil many different roles. A single role may be contributed to by several people.

Everyone in an organization should feel responsible for contributing to the achievement of organizational objectives. However, not everyone is responsible for everything.

For an organization to function efficiently, it is important that roles and responsibilities are well defined and understood. Stakeholders of all types find it helpful to know what level of authority and responsibility they have in any situation.

Roles rarely map cleanly to jobs. It is the organization’s responsibility to decide how tasks are assigned, distributed, and managed to ensure that high-quality products and services are produced.

7.3.1.3 RACI and the assignment of accountability

A responsibility assignment matrix, or RACI chart, is a tool for identifying and documenting roles and responsibilities, as outlined in Table 7.1.

Table 7.1 RACI chart roles

Abbr.	Authority	Description
R	Responsible	The person in this role performs the activity. There may be more than one responsible person per activity.
A	Accountable	The person in this role is the ultimate decision maker and is responsible for the outcome of the activity.
C	Consulted	The person in this role provides input, based on their expertise on the activity or its potential impact on future projects.
I	Informed	The person in this role is regularly updated regarding the activity, but does not need to be more involved.

A RACI chart provides a compact, concise, and straightforward method of tracking who does what, enabling fast, confident decision-making. Whether or not organizations prefer to leverage RACI charts or some other method, it is essential not to leave role assignment, particularly of the accountable role, to chance or to delay the decision.

There are several areas in the SVS where the allocation of accountability is particularly important. In a complex organization that has not clearly assigned accountability for its key activities and services, issues will not always be noticed, and quality will suffer.

7.3.1.4 Service ownership

Service provider organizations have a powerful interest in ensuring that their services are properly managed and improved. Some may choose to assign an owner to every service in their portfolio, but all should assign owners to their most essential services. One way of determining whether a service should be assigned an owner is to consider its importance based on the following factors:

- how many customers use the service
- how much of the service provider’ s business is dependent upon the service
- how critical the service is to the customers who use it
- how much care or attention the service requires to remain healthy
- whether the service is increasing in importance to the service provider and its customers.

There may be other factors to consider, depending on the service provider in question.

The owner of a service is accountable for the delivery of that service. Their accountability for the service extends from when the organization adds it to its portfolio until its eventual retirement. The owner’s accountability for a specific service within an organization is independent of where the underpinning technology components, practices, or professional capabilities reside. Sometimes, a particular person can own multiple services. However, the owner of a service that has an extensive scope or importance should not also own another service.

The assignment of ownership, and therefore accountability, in other parts of the SVS can be equally important. In particular, assigning owners to key value streams and key practices may provide the leadership and attention necessary for successful execution and management. As with services, one person can own multiple elements of the SVS, such as

a group of related value streams, processes in a single practice, or mature practices that do not need extensive individual attention.

An owner should not only be accountable for the thing they own, but should also be given sufficient authority over it to make a real difference. Assigning someone accountability for something without commensurate authority will not yield the desired results.

7.3.1.5 Roles and competencies

The structuring and naming of roles differs between organizations, and the roles defined in ITIL are not compulsory. The ITIL practice guides describe each role using a competency profile based on the model shown in Table 7.2.

Table 7.2 Competency codes and profiles

Competency code	Competency profile (activities and skills)
L	**Leader** Decision-making, delegating, overseeing other activities, providing incentives and motivation, and evaluating outcomes
A	**Administrator** Assigning and prioritizing tasks, record-keeping, ongoing reporting, and initiating basic improvements
C	**Coordinator/communicator** Coordinating multiple parties, maintaining communication between stakeholders, and running awareness campaigns
M	**Methods and techniques expert** Designing and implementing work techniques, documenting procedures, consulting on processes, work analysis, and continual improvement
T	**Technical expert** Providing technical (IT) expertise and conducting expertise-based assignments

Successfully performing an activity requires a combination of competencies. However, some competencies are more important for an activity than others. The position of the competency in a competency code illustrates its relative importance. For example, in the CAT competency profile, communication and coordination skills are very important, administrating skills are somewhat important, and technical knowledge is useful but less important for the activity described.

Understanding a role's competency profile helps to:

- identify the best candidates (or groups) to perform the role
- identify gaps and plan the professional development of team members
- define requirements to newcomers and form job and role descriptions
- align the organization' s workforce and talent management practice with industry competency models and professional development programmes.

Only a few activities and roles demand technical skills and knowledge. For the majority of competency profiles, communicating or administrating competencies are the most important. Once the high-level competency profile is understood, industry competence models, such as the European e-Competence Framework (e-CF) or the Skills Framework for the Information Age (SFIA), can be used to detail the requirements and to plan professional development.

Examples of the skills and knowledge needed in service management include:

- Communication skills The ability to establish good working relationships with a variety of stakeholders atdifferent organizational levels using verbal and written communication, media, and appropriate language and tone. Good communication ensures positive

interactions with colleagues, customers, managers, staff, and other stakeholders.

- Business and commercial skills Most technology environments encompass both supplier and commercial relationships. Service managers utilize their commercial skills to specify, buy, negotiate, and manage those relationships. Commercial, procurement, and contract management skills are in high demand. Budgeting and financial management are key service management requirements, as are the skills of writing and selling a business case and producing promotional materials to advertise services.
- Relationship management skills These skills are crucial. Relationship managers function as active liaisons and synchronizers for information, feedback, demand, and progress between parties. Additionally, they convey direction and feedback to relevant groups, ensuring a smooth flow of information and action between groups.
- Leadership skills Leadership involves the ability to influence, motivate, and support individuals in their work. Leadership does not only come from managers. Great leaders are those who show initiative, take ownership, and empathize with and inspire others. When building teams, it is important to include leaders who possess these skills to create a great working culture.
- Market and organizational knowledge As a result of IT and business roles becoming more aligned over time, technology roles must understand their organization's business and market sectors. For example, people in technology roles should be aware of market developments with regard to competitors, relative costs, and capabilities.
- Management and administration Successful service management requires good management, delegation, documentation, and logistical skills. Much of this work involves bringing people together, agreeing on actions, and providing useful and practical documentation.
- Developing innovation A business and entrepreneurial mindset is increasingly becoming a requirement, even within internal service management organizations. This mindset is necessary for identifying new ways of working, of delivering services, and of solving problems, which may involve exploiting new technology, creative thinking, or customer interactions.

7.3.1.6 Establishing effective interfaces across the value chain

Across the service value chain and value streams, people contribute best when they can collaborate and coordinate their efforts. The guiding principles of 'collaborate and promote visibility' and 'think and work holistically' are important when establishing the interfaces between organizations and people involved in value chain activities.

In the context of organizations and people, the principles, methods, and techniques relating to communication and OCM help in beginning to establish interfaces. The value chain and respective value streams should be examined, considering how well the interfaces enable people to work together. It is important to ensure that everyone has access to the relevant knowledge, information, and people at the right times. Over time, as the biggest impediments to collaboration and cooperation are removed, organizations will have to examine their value stream maps more carefully to identify improvements.

Some interfaces function like a control point, a check on the relevant activity. For example, there may be a step in a value stream in which a manager must give approval for an activity to continue. Organizations sometimes define too many interfaces and control points. For every control point, it is important to check whether the interface or control is effective and practical.

Some good practices to follow when defining interfaces are:

- Encourage active stakeholder participation Users who have the authority and ability to provide information about the system and interfaces being built should be given the opportunity to do so.
- Review and approve It is important to review the interface and design documents for precision, comprehensiveness, and usability.
- Standardize Whenever possible, project teams should consider using an industry-recognized standard for system interfaces.
- Document clearly Interface details should be documented as interface control documents, and supporting system specifications should be documented as system design documents.
- Have a clear rationale It is important to document the rationales behind design decisions and trade-offs.
- Understand other interfaces Systems and devices have varying interfaces. Understanding any required system interfaces prior to design is crucial.
- Verify It is important to ensure that all models fulfil their functional requirements.
- Be aware of trade-offs In most instances, there are several ways to accomplish something. It is important to consider the positives and negatives of each approach, and how their effects could propagate throughout he system.

7.3.1.7 Service provider culture

Culture can be described as a set of values that is shared by a group of people, including expectations about how people should behave, ideas, beliefs, and practices. All organizations have a culture. Culture makes human actions predictable.

The importance of organizational culture is often underestimated enormously. To understand an organization's culture and its readiness for service management, it is important to ask these questions:

- Do people trust each other in the organization?
- What are the management and leadership styles?
- Is there a culture of 'fail fast, fail often' or a blame culture?
- Is management committed to the promoted values?
- Are the value and importance of individual activities recognized?
- Are people taken for granted in the organization?

Organizational culture can cause the success or failure of a service management programme; it must be considered a success factor in the creation and delivery of products and services. Service provider organizations focusing on value creation will display some or all of these common characteristics:

- Value, quality, and operational excellence focus These organizations are results-driven, demanding precision and consistency in the creation and delivery of products and services. They focus on innovation, growth, and maximizing potential.
- Customer consumer orientation These organizations seek long-term and mutually beneficial relationships. They believe that customers are made, not obtained, and that

they should be invested in seriously with time, money, and organizational commitment. Satisfying the customer becomes the driver for their vision, mission, and strategic objectives.

- Investment in people and communication/collaborative tools As a social process, the provision of services is associated with the ability to identify, mobilize, and focus human energy by cooperating and collaborating with stakeholders. Investment in tools which maximize collaboration and visibility is a priority for these organizations.
- Strong team composition within a structured organization Combining operational excellence, client orientation, and collaboration allows these organizations to provide a strong central organizational structure while allowing for Agile, solution-oriented teams to operate in a decentralized manner.
- Continuous alignment with the vision, mission, and strategic objectives In order to focus on value, these organizations adapt and continually improve their products and services to serve their consumers. The focus on value is driven from the top down: from strategy to operations and across the SVS. Introducing these elements and having them accepted by the individuals in the organization takes time, but their effect can be quantified through the quality, quantity, and longevity of customer relationships.

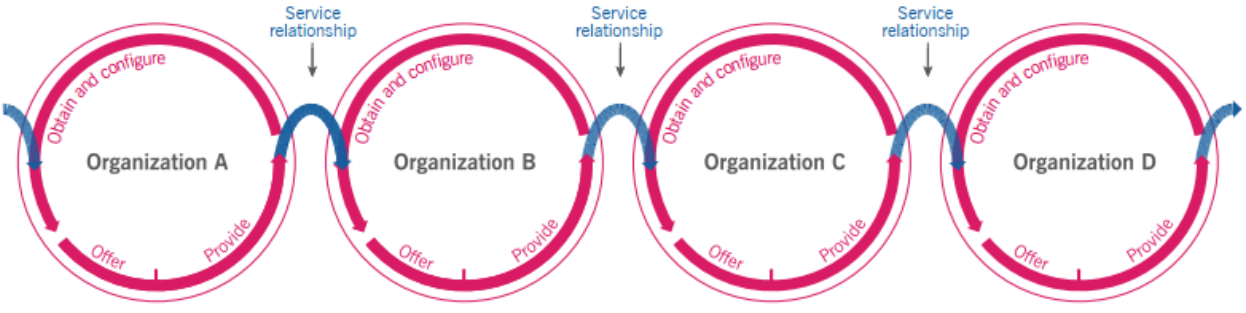
7.3.2 Partners and suppliers in the SVS

Relationships with key partners and suppliers should encompass the concept of co-creating value. Organizations and their suppliers should each want the other to be successful. For this to happen, there must be value for both parties in the relationship.

Service providers should carefully consider how and when to engage a partner or supplier, and should diligently manage the relationship with the supplier alongside the services being supplied.

7.3.2.1 Service relationships with suppliers and partners

In a service relationship, organizations will adopt the roles of service providers or service consumers. The two roles are not exclusive: organizations typically provide and consume a number of services at any given time. The ways that organizations can transition between roles are shown in Figure 7.1.



There are many types of service relationships. ITIL mainly refers to the three archetypal service relationship types described in Table 7.3. The relationship types are important for both service providers and service consumers; their perceptions of each other and of the relationship should be aligned. ITIL Drive Stakeholder Value provides guidance on every type of service relationship for service providers; however, similar considerations are important for service consumers when they manage relationships with partners and suppliers.

	Basic relationship	Cooperative relationship	Service partnership
Typical focus	Support and efficiency	Improvement and effectiveness	Innovation and growth
Typical organizational level involved in the relationship	Operational	Operational and tactical	Operational, tactical, and strategic
Typical level of relationship maturity	Ad hoc, order taker	Service provider, trusted adviser	Strategic partner
Typical service types	Commercial off-the-shelf services, out-of-the-box services, highly standardized commodity services, or goods supply	Services that have to be configured or customized to fulfil the needs of the service consumer	Custom or bespoke services with unique value propositions
Typical types of agreements	Standard contracts, SLAs, and experience-based agreements, mostly for mass market	Advanced SLAs, experience-based agreements, or outcome-based agreements	Bespoke contracts, outcome-based agreements, or no agreement. Agile environments, experimentation, and hypothesis testing.
Examples	Service consumers articulate their expectations quite clearly, as the service provider expects. Examples include standardized services offered to a wide group of individual external service consumers. This is how mobile operators, broadband service providers, and transport companies usually operate.	Depending on the relationship between the service provider and service consumer, it can be difficult for the provider to fully understand the outcomes that the service consumer wants to achieve. In some cases, they will work together to define the desired outcomes. For example, relationship managers in internal IT or HR departments may regularly talk with customers and discuss their needs and expectations.	Services based on service offerings and products that have been planned and built in accordance with requirements specified by the customer. Agile product development where the service consumer and service provider co-create the product in shared teams.

7.3.2.2 Basic relationship

A contract for the supply of hardware is the most straightforward of these arrangements in IT and service management: costs are set, delivery timeframes are negotiated, utility and warranty are clearly expressed, and it is easy to report on performance against contracted expectations. There is little room for ambiguity in this relationship; either the goods are delivered on time and perform as expected, or they do not. There will be contractual requirements and penalties that will provide for remedial action if expectations are not met.

7.3.2.3 Cooperative relationship

A contract for the delivery of services, such as platform (or technology) as a service, allows for interpretation, and therefore misunderstanding between parties. It is important to understand each party's definition of value, where one partner's responsibility ends and another's starts, and exactly what level of service has been purchased.

For example, has the organization purchased exclusive tenancy on a platform, or is it in a shared services arrangement? If a shared tenancy arrangement was accepted, the organization cannot dictate outage windows or insist on changes to shared infrastructure components, as any changes will need to either benefit, or at least have no negative impact on, all tenancies on the platform.

Did the organization agree to a 'black box' service? If so, the supplier must deliver a service that meets the contracted requirements, but it will not need to detail the underlying architecture, which may be commercially sensitive. The partner is responsible for ensuring

that the service meets contractual requirements, but it does not need to explain how this is achieved.

7.3.2.4 Service partnership

In this type of service relationship, both partners have shared goals and will be working together to deliver value to customers. A good example of this is employee onboarding, where IT, HR, and facilities should coordinate to deliver an effective and efficient experience to new employees.

This coordination is challenging; there are many stories in virtually every organization that show what happens when it is not achieved. For example, if HR does not submit the correct information to IT, the required hardware and software may not be delivered in time. Appropriate automation of this type of process will resolve many of these issues.

7.3.2.5 Establishing effective interfaces across organizational boundaries

Partner relationships, whether internal or external, must have well-established and effective interfaces that can traverse internal and external boundaries. Communication channels need to be open and provide opportunities for the regular discussion and remediation of issues.

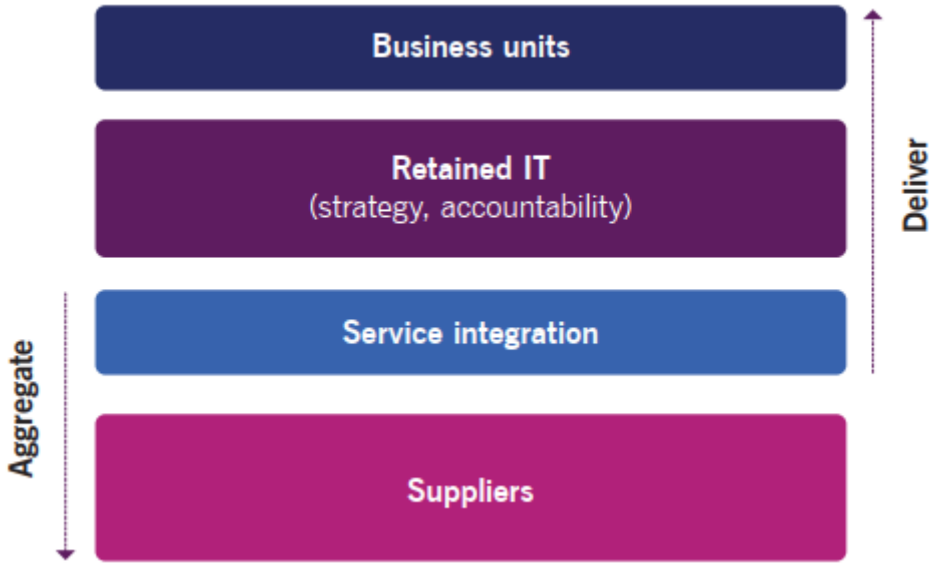
Processes for collaboration that include clear escalation channels and points of contact are critical for maintaining healthy working relationships. These processes should be simple; if they are complex, they are likely to be circumvented. In environments where communication channels are not established early, irreparable damage to the relationship can occur before anyone realizes what is happening. Communicating well and never assigning blame in difficult situations is the best way to solve problems.

7.3.2.6 Service integration and management

An increasingly common and effective way of managing a complex ecosystem with multiple partners and suppliers uses a service integration and management approach, where a separate function of service integrator is established. Service integration aims to coordinate internal and external service providers to deliver a cohesive service to the organization and its customers.

There are four main models for service integration. They are:

- Retained organization as service integration and management The organization manages all vendors and coordinates the service integration and management function itself.
- Single supplier The vendor provides all services as well as the service integration and management function.
- Service guardian A vendor provides the service integration and management function and one or more delivery functions, in addition to managing other vendors.
- Separate service integrator A vendor provides the service integration and management function and manages the other suppliers, even though the vendor does not deliver any services to the organization.



Service integration is not a practice, but it draws on several other practices to provide a function that aims to
minimize the risks inherent in multi-sourced approaches.

To consider service integration, organizations should assess their internal skills and organizational maturity, and
the complexity of the environment they will be managing.

7.3.3 Value streams and processes in the SVS

The work of service management is organized and improved through the use of value streams. These constructs define what is done and how it is done, with appropriate variations based on need and circumstances.

Organizations should examine how they perform work and map all the value streams they can identify. This will enable them to analyse their current state and identify any barriers to workflow and non-value-adding activities, i.e. waste. Wasteful activities should be eliminated to increase productivity.

7.3.3.1 Focus on value streams

Value streams are the vehicle for delivering value to customers. A value stream consists of steps that add value to the unit of work being processed in the service value chain to transfer any demand or opportunity into valuable outcomes. Each step is performed in a defined way and uses one or more practices.

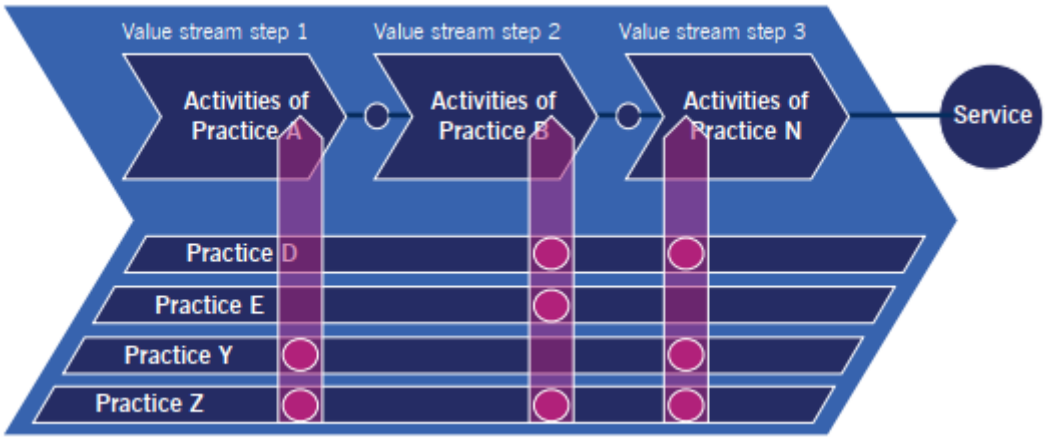
ITIL, especially the guiding principle of ‘focus on value’, aims to continually improve the way each of these steps is performed, both individually and particularly as a chain of steps to be optimized. When work is performed incorrectly or required value is not created, the cause is most likely to be in the value stream.

Focusing on value streams provides the means to identify possible improvements to the workflow and the practices involved in a particular value stream. This combines a Lean approach to flow optimization and the elimination of waste with such guidance principles as ‘focus on value’, ‘think and work holistically’, and ‘progress iteratively with feedback’.

7.3.3.2 Relationship between value streams and practices

A lot of service management guidance, including applicable ISO standards, is process-oriented. Processes are fundamental to organizational success, and their status as part of the four dimensions reflects this. They support value co-creation via value streams, and should not be focused on in isolation or as an end goal. However, if an organization spends too long focusing on its processes, it does not always give the appropriate attention to its products and services or the value they should be enabling for its customers. ITIL4, with its emphasis on value streams, is value-oriented.

Organizations must develop and maintain their ability to provide their services to service consumers; this effort is supported by the ITIL practices. For example, when an organization needs to develop and maintain its ability to understand its IT assets, it focuses on developing its IT asset management practice, addressing all four dimensions of service management.



A service provider uses the value chain activities as building blocks for defining its value streams. As each value stream is implemented, relevant practices contribute to it. Some are involved in the value stream activities; others contribute by providing information to support decisions in the value stream. Figure 7.3 shows the relationship between a value stream and the relevant practices.

Value streams organize the big picture of value creation for the customer, and practices are the means by which the organization applies its specific resources to the tasks along the way.

7.3.3.3 Relationship between value streams and processes

Value streams and processes are not the same things, but they have a great deal in common. Both value streams and processes are concerned with activities and workflow: they help organizations understand what happens and how. A value stream map records the movement of key information and resources across the workflow and illustrates where waste can potentially be found. Processes can also be mapped, although not every organization documents their processes graphically. Both processes and value streams define activities, input, and outputs.

The key differences between value streams and processes are in their focuses and how they are used. These differences can be subtle, but they are important. Almost any set of interrelated activities that transform inputs into outputs could be considered a process. Value streams, however, focus around the flow of activity from demand or opportunity to value (for

example, the flow of activities from when a user calls a flooring company and asks about refinishing wood floors to when the user's floor has been completely refinished is definitely a value stream). If a company looks at the flow of activities from when a calendar month ends to when its accounting ledgers for that month are updated, it is highly doubtful that it will consider that to be a value stream. The work to do the monthly financial calculations is a process.

The ways in which value stream maps and process documentation are used are also very different. Value stream maps are usually presented visually, and are used to look at an end-to-end workflow holistically, showing both how individual steps can be improved or eliminated, and how the areas between the steps can be improved. Process maps or other process documentation are typically better suited to finding issues with how each step is performed, but this sometimes causes local optimization rather than overall improvement.

7.3.3.4 Designing a workflow

When designing a workflow for a process or a value stream, the questions that need to be answered include:

- What will cause the work to start?
- What information, whether it is obtained from an external stakeholder or internally, is required to create the defined outputs or outcomes? When will the information be available? What format will the information be in?
- Which steps need to occur in order to achieve the required output? Which steps can be performed in parallel and which have prerequisite steps, activities, or sub-processes? How long does each step take?
- What artefacts are created by the workflow?
- What value does each step create for the service provider, its consumers, or other stakeholders?
- Which policies must the process or value stream comply with?
- What aspects of the workflow will be measured? How will the data be formatted, stored, and used?

7.3.3.5 Considerations for efficient design

Process design is often aided by templates and toolkits that may be found in management literature, provided by consultants and trainers, or documented as out-of-the-box tool functionality by vendors. These are often good starting points for the ongoing continual improvement of the SVS and its resources. Such literature should be evaluated against the service organization's needs, so that opportunities or requirements to adapt the literature or functionality can be identified and implemented as soon as possible.

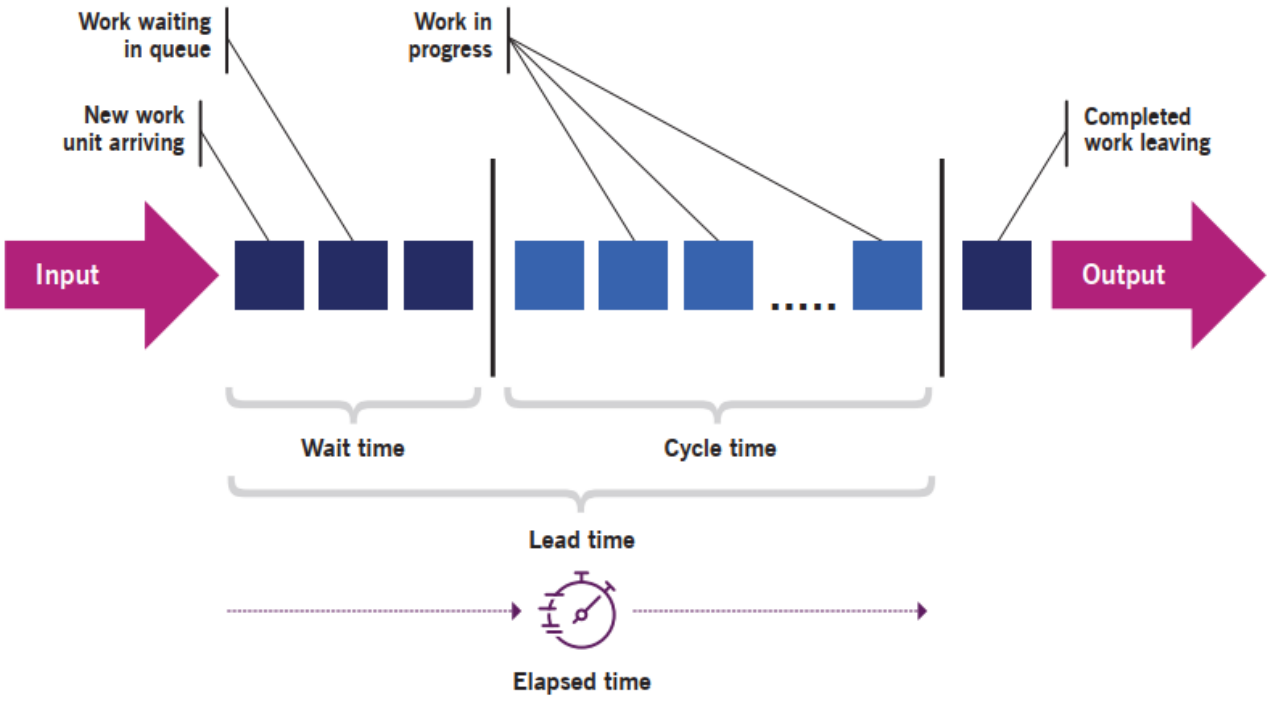
Defined guidelines on ways of working in the event of unexpected or unpredictable issues can be useful; for example, how would a team log incidents if its primary tool was no longer available?

There are several important metrics which can be defined for any workflow and activity;

Term	Description
Cycle time	The amount of time required to complete a discrete unit of work, converting input(s) into output(s). For example, if it takes five minutes to fill in a new incident form, the cycle time is five minutes.
Wait time	The amount of time a discrete unit of work waits in a queue before work begins. For example, if an incident ticket waits (on average) four hours before work on it begins, the wait time is four hours.
Lead time	The sum of the cycle time and wait time. Lead time represents the total time required to complete a discrete unit of work, from when it enters the process queue to when the process ends.
Process queue	The number of discrete units of work waiting to be operated upon by a process.
Work in progress (WIP)	The number of discrete units of work being operated on, but which are not yet completed.
Throughput	The rate at which work enters or exits the system.

These metrics originate from Little's Law, and more information can be found in operations management or queuing theory literature. Little's Law can be simplistically represented as:

$$\text{Work in progress} = \text{Throughput} \times \text{Lead time}$$



Little's Law suggests the following considerations when designing a process:

- The number of times work is transferred should be minimized. Transfers create queues, and queues increase wait time, thereby increasing lead time. This can be accomplished by increasing automation, training staff, or reorganizing teams.
- Throughput, especially in the context of external events and triggers, is often not under the service provider's control, but it can be approximated using mathematical and statistical models.
- Wait time can be expressed as a function of cycle time. For a new unit of work, it is cycle time multiplied by units of work in the system.
- Depending on the nature of the work, cycle time can be assumed to be fixed.
- To stabilize cycle time, it may be necessary to limit the WIP. This is the premise of Kanban. It works well in environments where the throughput is predictable.

7.3.3.6 Theory of constraints

The theory of constraints provides another way of looking at process flows and determining where bottlenecks may be constraining the value produced by the process. The theory states that 'the throughput of any system is determined by one constraint'. Increasing the value of a process relies on identifying and removing these key constraints.

Eliyahu M. Goldratt (1984) described a five-step process to apply this theory:

- Identify the process's constraints.
- Decide how best to exploit the process's constraints.
- Subordinate everything else to the above decisions.
- Evaluate the process's constraints.
- Remove the constraints and re-evaluate the process.

7.3.3.7 Kanban technique for managing work

Those who struggle to oversee, prioritize, and manage work often find Kanban useful. People can have trouble planning work because they are unable to visualize the steps involved. Kanban boards target this issue by facilitating a full visualization of the process workflow. The board is divided into the process stages, and work items (Kanban cards) are placed on it and moved as the stages progress.

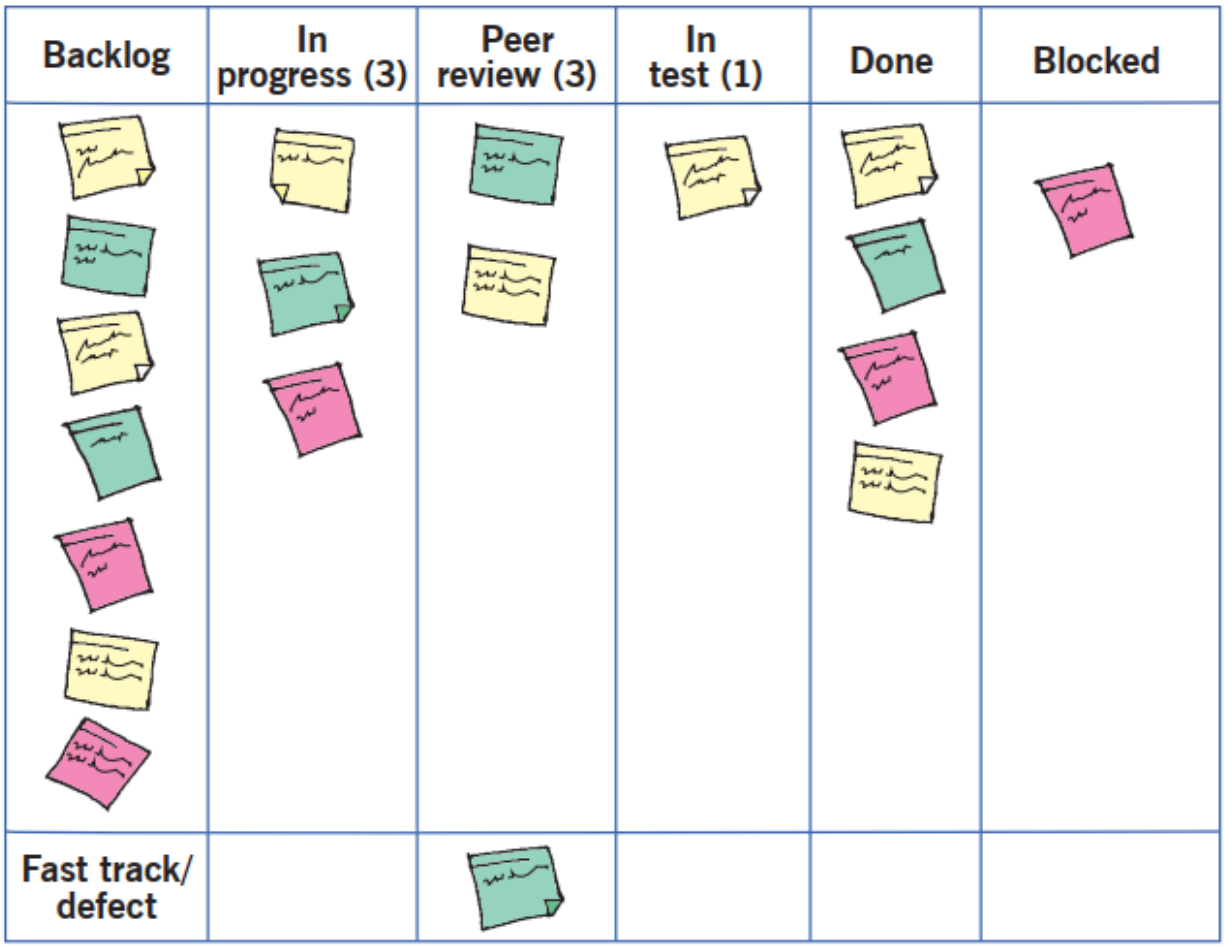
Kanban is used for:

- visualizing the process and radiating the information onto the team
- limiting the WIP
- managing and measuring workflows.

Kanban is easy and risk-free. It requires no changes to the current process, scales well, and does not generate extra costs. Figure 7.5 shows an example Kanban board.

The easiest way to try the Kanban method is to create a simple Kanban board on a whiteboard and place tasks written on cards (or sticky notes) on it. A Kanban card should include the task's name, due date, definition of completeness, and assigned performer. It is common to use differently coloured cards to indicate specific types of tasks.

The idea behind setting WIP limits is ensuring that the maximum number of tasks are finished in a certain time. WIP limits promote focus, eliminate wasteful multi-tasking, and make it easier to see bottlenecks.



7.3.4 Information and technology in the SVS

The throughput of the SVS, that is, the ability to move from demand to value, can be both enhanced and hampered by technology decisions and the management of related information. The desire for the best technology and the huge number of available technology solutions often result in a disconnected tool chain. When planning how to streamline this tool chain, it is critical to consider the current state and needs of information technology, along with those of the other three dimensions. Organizations which do not consider all four dimensions in this way are likely to have a high percentage of overlapping technologies with under-exploited capabilities. Governance and controls should be leveraged to help prevent a fractured tool chain from developing or getting worse.

Selecting and implementing tools is an investment. Once a technology is adopted, mechanisms for maintaining and maximizing its benefits must be in place. Implementing a new technology introduces a new value stream to manage. Often, the implemented technology is not funded beyond one project; it becomes unused, a siloed solution, and/or obsolete.

Robots	Robots can be used to simulate activities that humans perform via screens and applications to capture, interpret, and process transactions, triggering responses, and creating and manipulating data in consistent and predictable ways. These robots are typically low cost and easy to implement. They do not require redevelopment of existing systems, or complex integrations within existing systems. The potential benefits are clear, as they allow for consistent, reliable, and predictable processes to be implemented cost-efficiently. Consistency leads to fewer errors in key processes, increases in revenue, and better customer service and retention. Generally, there are three types of robotic process automation technology: ● Process automation This focuses on automating tasks that depend on structured data; for example, spreadsheets. ● Enhanced and intelligent process automation This works largely with unstructured data as input; for example, email and documents. This type of automation can learn from experience and apply the knowledge to process different requirements. ● Cognitive platforms These can understand customers' queries and execute tasks which previously required human intervention.
Artificial intelligence (AI)	Cognitive technology is increasingly being used to provide more automation in all phases of the service lifecycle, and to enhance the service experience both for consumers and for the people involved in serving them. It is also increasingly prevalent in related and supporting domains, such as software development and operations. Although AI technologies have existed for decades, a new generation of cloud-based tools have resulted in a significant increase in focus and usage. There are now a number of AI tools provided by vendors as public cloud services. This has significantly improved the accessibility of AI tools, with solutions which might previously have required complex technology and significant financial outlay now being available on demand, at a potentially lower cost.
AIOps platforms	The practice of combining big data, analytics, and machine learning in the field of IT operations. Instead of siloed teams monitoring their own parts of the infrastructure, the idea is to collect all the important monitoring data in one place and use machine learning to identify patterns and detect abnormalities. This can help IT departments to identify and resolve incidents faster and to detect potential problems before they happen. It can also be used to automate routine tasks. AIOps aims to bring artificial intelligence to IT operations, addressing the challenges posed by modern trends in the ongoing evolution of infrastructure, such as the growth of software-defined systems. The implications of these new technologies, such as the increase in the rate at which infrastructure is reconfigured and reshaped, necessitate more automated and dynamic management technologies, which may have significant impacts on digital services. AIOps harnesses data platforms and machine learning, collecting observational data (such as events, log files, and operating metrics) and engagement data (such as customer request and service desk tickets). It draws insights by applying cognitive or algorithmic processing to this data. These insights may be used to drive some or all of a range of common outputs, such as: ● issue detection and prediction, helping the service organization to respond more quickly to incidents ● proactive system maintenance and tuning, reducing human effort and potential error ● threshold analysis, enabling a more accurate picture of the normal range of operation of a system. Some organizations have also started to use AIOps beyond IT operations, to provide business managers with real-time insights into the impact of IT on business, keeping them informed and enabling them to make decisions based on relevant data.
Machine learning	An applied form of AI. It is based on the principle of systems responding to data, and, as they are continually exposed to more of it, adapting their actions and outputs accordingly. Where machine learning is used to underpin services, this essentially means that it becomes the basis for decision-making, in place of paths which are defined by instructions created by human service designers. As the complexity of a task increases, it becomes harder to map machine learning to it. Machine learning is typically best suited to solving specific problems. For example, it can be used effectively to make decisions about data classification on support records.

Integrated toolsets	These toolsets automate records and workflow management and act as engagement and communication tools; many aim to support a holistic information model for service management. The majority of these toolsets are designed to automate the ITIL service management practices, and they are constantly evolving to adopt new technologies. The most-used functionalities of these toolsets are systems of record and systems of engagement. These are used to raise, classify, prioritize, escalate, and resolve issues, requests, and changes for items and areas of business and technology infrastructure (including people, IT, departments, services, and functional areas). This also includes the real-time management of expectations for delivery and fulfilment, approval, escalation, and consumption, plus other administrative functions for inventory, finance, and lifecycle management. The value of these toolsets is in the real-time dynamic ability to manage volumes of work which range from small and simple to complex and large, and to provide reporting and business analytics on performance, trends, improvements, costs, and risks. In addition, the toolsets offer accountability and audit trails on the delivery of work and management of 'service' assets and resources. Organizations of varying size and reputation use these toolsets in some form or another to optimize routine record-keeping, and demonstrate some levels of accountability, consistency, and control. However, most organizations only use the basic functions in the toolsets (incident management, service level management, inventory management) and ignore the opportunities for multi-functional integration across processes. As such, the opportunity for end-to-end value stream integration that the toolsets provide has rarely been utilized. However, as new challenges and opportunities arise, there is a greater requirement to make use of this functionality and integration.

The rest of this section will review the value of service management suites and emerging technologies, and the importance of ensuring that the information they deliver is scalable, and that it meets stakeholders' needs and delivers value to them.

7.3.4.1 Service management tool suites

Service management tool suites are platforms that include multiple applications, often extending beyond ITSM to the HR, finance, and facilities departments and other competencies needed to run the business and to ultimately enable value to customers. Value streams and value chains traverse multiple ITIL practices, requiring information to be available and shareable. In the event that there are multiple systems for managing this work, integration can reduce the time spent switching between systems.

For example, IT assets are often requested through a service request catalogue within a service management tool suite. However, these catalogues are rarely connected to the procurement system; instead, someone manually enters information from the service management suite into the procurement system. This impacts productivity, accuracy, and asset delivery times.

It is important that tool(s) support the practices, not dictate them. It is likely, however, that some compromise in the tool and/or the practice will be necessary. If compromise is needed, it is important to assess whether tool customization is crucial to align with the practice or whether a practice modification is acceptable.

Extensive customization of any out-of-the-box product should always be avoided. Customizations may limit upgrade possibilities, release the vendor from support obligations, and reduce the value of external training on the core functionality

An evaluation of a service management tool suite should start by understanding the organization's unique needs. The short- and long-term objectives of a solution need to be defined. The type of tool required depends on the business need for IT services and, to some extent, the size of the organization.

Evaluation activities include:

- identifying requirements, including:
  - short- and long-term objectives
  - functional requirements
  - non-functional requirements
- identifying candidates by:
  - reviewing the organization' s current tool inventory to understand what is in place and define any gaps
  - reviewing market research, such as the Gartner Magic Quadrant for ITSM suites and the Forrester Wave Methodology
  - networking with customers at industry events and in user groups
- ranking requirements by importance; for example, by using the MoSCoW method
- evaluating options by:
  - scheduling product demos
  - validating that 100 per cent of the mandatory requirements can be met

    - visiting other customers and calling references
- shortlisting options by:
    - removing any products that do not meet mandatory requirements
    - requesting proposals, thereby gaining an understanding of the licensing, subscription, and maintenance fees
- scoring/ranking, factoring in whether:
    - a proof of value or concept is necessary
    - an option is an 80 per cent fit or better for all functional and non-functional requirements
    - an option supports short- and long-term objectives
- selection.

Some evaluation considerations include:

- maintainability
- ease of implementation and ongoing management
- data structure and reporting capability
- integration capability and interfaces
- multi-tenant or other domain separation options
- open standards, community development
- accessibility requirements
- mobility and browser support
- data backup, control, and security
- scalability
- security and access controls
- patching and upgrade cadence
- availability
- platform infrastructure, operating systems etc.
- support procedures and availability
- training options
- licensing model
- vendor strategy, image, financials, references, etc.

Tools for evaluating vendors may be available through a defined supplier management practice.

7.3.4.2 The benefits of exploiting emerging technologies

Several complementary systems and tools are available that can help increase capability alongside service management suites. Organizations which do not adopt these emerging technologies can be left behind. However, it is important to acknowledge the amounts of skill

and time required to get value from these investments. Some organizations adopt too many new tools, unwittingly straining resources. Often, tools are adopted to increase efficiency, but most tools require resources to maintain. Therefore, a comprehensive business case is required to justify the endeavour.

Whether it be cloud computing, mobile (BYOD), cognitive computing solutions, monitoring and reporting, or automation and testing, it is IT operations' responsibility to adopt and adapt these changing solutions in a timely, cost-effective manner.

The recent massive increase in the numbers and types of digital devices has led to new types of online communities and services which have, in turn, changed the way business and social interactions work. For example, smartphone and tablet devices have enabled new mobile business models that could not have existed ten years ago. Cloud is a business and IT operating model for delivering real-time or near-real-time information and access to services. Artificial intelligence and machine learning will soon revolutionize IT once again. Workflow automation is increasing exponentially. All new technology represents new opportunity.

7.3.4.3 Establishing an information model

All organizations have existing information models. Understanding what they are, their sources, and how they are maintained is a critical part of any IT and service management implementation. An information model contains information on the relationships between data models.

Definition: Information model

The construct of information, related to the taxonomy and relationships of data to other data, required to present and share content in a meaningful and representative way.

Commercial IT and service management information systems will also have a pre-defined taxonomy of data and information that will need to be populated. Information modelling is foundational to any implementation, and will need to be revisited as part of continual improvement.

An organization's data models need to be mapped to those of the IT and service management systems. This mapping requires an understanding of the native way the tool organizes and relates the data from one table to another.

As part of the mapping exercise and prior to loading any data, it is important to assess whether the data should be consumed by asking:

- Is there a definitive source for the data? What or who provides this information?
- How many sources have to be integrated? Is there a team that can aggregate and normalize the data from these sources?
- Is the data current?
- How is the data maintained?
- Is the data currently stable? Does it change frequently?

Ideally, the information needed can be consumed from a central point that aggregates and normalizes the data. This core information is needed across toolsets; a broker reduces the complexity when changes are needed, and increases the integrity of the information. Where possible, the number of integrations required to consume this data should be limited, to

minimize the administration and testing of changes during various system upgrades.

It is important to avoid manually updating data in IT and service management systems that is controlled by an external source. For instance, if a user's information is inaccurate in the system, they should be guided on updating their information in the definitive source system. Doing so will allow auto-updates to be scheduled to maintain this data in near real time. If manual updates are allowed, automation will overwrite them. The amount of administration and maintenance can be minimized by automating the update of information from source systems.

Questioning the need for data can help to increase efficiencies. For example, if the organization is going through a major transformation, the need for ongoing data input should be assessed. After data is populated and related to other data, it can be difficult to make changes without impacting the continuity of information reporting. Data can always be mapped and kept unloaded until additional demand is identified.

When defining requirements for data, it is important to define and remember the objective. Some questions to ask to help identify data requirements include:

- How is information organized and presented?
- How should the data be organized, ideally?
- Is the information communicated to units in the organization (teams, departments, leaders, etc.)?
- Are models accurate and reflective of the current environment?
- Is there a need to combine, collate, and analyse data from other toolsets?

Changes to foundational data can be very expensive. For example, let us say a company used custom categories for incidents, problems, requests, configuration items, change, availability, and monitoring. This company would find it difficult to compare and relate data across record types. Instead, a shared categorization model should be leveraged. For example, a service catalogue should be produced with business services and IT services defined. This information would be modelled in the configuration management database (CMDB), and then applications and infrastructure could be modelled to the services. This model could be used for visualizing the availability of services and components. The cost and stability of a service could be analysed, as the related incident, changes, and problems can be easily identified with a shared categorization model. The company that started with the custom categories will have to do a lot of rework to standardize categorization; so much so that some organizations find it easier to start with a new system than to modify what they have.

7.4 Summary

If an organization is genuinely committed to adopting a way of working that focuses on services, value, and outcomes, it must design its SVS accordingly. By leveraging the ITIL guiding principles and aligning with organizational governance and strategy, the organization should develop and configure its resources to enable value co-creation. Becoming service-oriented and maintaining that orientation is inherently challenging, but it is well worth the considerable effort.

8 Bringing it together

Throughout this publication, we have discussed many concepts and techniques for directing, planning, and improving service management and the elements of the SVS. In ITIL4, the two elements most closely connected to how work is done are value streams and practices. Value streams are the vehicle for delivering value to customers. Practices configure organizational resources to perform work or accomplish objectives.

8.1 Modern leadership

Modern organizations recognize that rigidly hierarchical structures are rarely productive; they can restrict productivity and creativity, discourage individuals from taking responsibility for their own contributions, and result in action being delayed because people are waiting for guidance.

New approaches to leadership may be difficult for some individuals at the higher levels of an organization to learn and employ. Long experience in a hierarchical environment can create habits that are hard to change. However, the increase in flat organizations, self-organizing teams, and servant leadership shows a trend against traditional hierarchical structures.

8.1.1 Servant leadership

Definition: Servant leadership

Leadership that is focused on the explicit support of people in their roles.

Effective leadership is important for achieving objectives, regardless of the organizational structure. For example, servant leadership is more effective than a command-and-control model for intellectually challenging work that requires agility and velocity. Servant leadership is an approach to leadership and management based on the following assumptions:

- Managers should meet the needs of the organization first and foremost, not just the needs of their individual teams.
- Managers should support the people working for them by ensuring that they have the relevant resources and organizational support to accomplish their tasks.

Servant leadership can often be seen in flat, matrix, or product-focused organizations. However, this approach can be applied to any organizational structure. Servant leadership inspires individuals to collaborate with the leader, resulting in a more cohesive structure and teams and individuals becoming more productive.

8.1.2 Leading from behind

The ‘leading from behind’ approach to leadership is akin to the way a shepherd moves a flock of sheep. It is not passive, but rather active in a different way. It is not done in the absence of organizational-level direction, but, when the overall organizational direction has been set, the day-to-day tactical and operational activity can benefit from leadership that guides and teaches rather than dictates.

Some keys that may clarify what is appropriate for leading from behind include:

- Those who are skilled at leading from behind do so firmly but gently. The leader sets the tone and boundaries, but encourages team members to take leadership roles and collaborate. If the team moves off course, the leader can guide them back by helping them to realize, rather than by telling them, that they have gone in the wrong direction.
- Leaders from behind ask a lot of questions to elicit critical thinking in their teams. Team members should feel that they have the scope to take responsibility, and be confident that their leader is there to help when issues arise.
- Leaders from behind are not absent or uninvolved. It may mean exercising indirect influence, but that is influence nevertheless.
- Leading from behind takes time, diplomacy, and patience. It is important to help team members understand what success looks like, but not to dictate every detail.
- It is important to recognize when the leader should take over and when leading from behind is inappropriate. Emergencies, for example, demand quick and strong leadership, not consensus.
- Leaders from behind may have to help team members learn how to lead from behind themselves. For example, a team may include someone who will attempt to dominate the group, which may be inappropriate.
- Neglecting a situation is not leading from behind; it is leadership avoidance.

Top-level management should set and maintain guidelines for leading from behind. This includes specifying structures, processes, and practices that are aligned with agreed principles, decision-making models, authority levels, and the information required for informed decision-making. Those who are performing the tasks that enable value co-creation should understand how to do so. Inadequate support and direction can, for example, result in initiatives that produce policies and procedures that have neither proper ownership nor lasting effects. Improvements are unlikely to become ingrained without a management structure that assigns roles and responsibilities, commits to their continued operation, and monitors performance and conformance.

8.2 Using the guiding principles for direction, planning, and improvement

8.2.1 Focus on value

One of this principle's key elements is ensuring value creation for all stakeholders. Whether value is in the form of revenue, loyalty, lower cost, or growth opportunities, the service provider must remain focused on value. All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders.

This principle naturally applies to the direction, planning, and improvement of value streams, since each value stream defines the flow of a specific journey through the service value chain from demand to value. The organization's overall vision and mission, combined with an understanding of what its service consumers find valuable, should serve as direction for value stream design.

Organizations need governance systems to satisfy stakeholder needs and generate value from the use of IT. Value reflects a balance among benefits, risk, and resources, and organizations need actionable strategies and governance systems to realize this value. For each decision, the following questions should be asked:

- Who will receive the benefits?
- Who bears the risk?
- What resources are required?

8.2.2 Start where you are

In directing, planning, and improvement, organizations are sometimes tempted to restart projects or initiatives rather than leveraging existing progress. This temptation should be avoided, except in very rare circumstances. The guiding principle of 'start where you are' should be applied to value streams, practices, and the four dimensions of service management.

It is important to use appropriate assessment methods to understand the current state and determine what can be re-used or built upon to reach the desired state. When evaluating the current state, discovered knowledge should be contextualized by the other things around it. When this is done, it becomes possible to accurately evaluate the impact of retaining some elements of the current state and altering others.

8.2.3 Progress iteratively with feedback

As we have already discussed, trying to do too much at one time is likely to reduce the effectiveness of the overall improvement effort.

Major improvement initiatives or programmes can be organized into several significant improvement initiatives. Each of these may, in turn, comprise smaller improvement efforts. The overall improvement plan, as well as its component iterations, must be continually re-evaluated and potentially revised to reflect any changes in circumstances and to ensure that the focus on value has not been lost. This re-evaluation should utilize a wide range of feedback channels and methods to ensure that the initiative's status and progress are properly understood.

8.2.4 Collaborate and promote visibility

At the end of the day, every employee working in an organization has the same high-level objectives. Cooperation and collaboration are keys to success. Working in a siloed organization, where each department has its own objectives and does not have much interest in what other departments are doing, does not engender long-term success. It is crucial to prevent this type of situation by breaking down silos and stimulating collaboration and communication.

Visibility is also important to allow individuals to understand what is going on, manage priorities, and know what is in the backlog.

8.2.5 Think and work holistically

No service, practice, process, department, or supplier is isolated. The outputs that the organization delivers will suffer unless it manages its activities as a whole, rather than individually.

Direction, planning, and improvement should acknowledge complexity and apply a holistic approach. To support a holistic approach to service management, ITIL defines four dimensions that collectively are critical to the effective and efficient facilitation of value for customers and other stakeholders in the form of products and services.

The four dimensions represent perspectives which are relevant to the whole SVS, including the entirety of the service value chain and all ITIL practices. The four dimensions are constrained or influenced by several external factors that are often beyond the control of the SVS.

8.2.6 Keep it simple and practical

If a process, service, action, or metric fails to provide value or produce a useful outcome, it should be eliminated. A value stream, process, or procedure should use the minimum number of steps necessary to accomplish its objectives. Outcome-based thinking produces practical solutions that deliver results.

Trying to provide a solution for every exception will often lead to over-complication. When creating a value stream, process, or service, designers need to think about exceptions, but they cannot cover them all. Instead, rules should be designed that can be used to handle exceptions generally.

Advice for successfully applying this principle includes the following:

- Ensure value Every activity should contribute to the creation of value.
- Leverage simplicity Simplification can be difficult, but it is always effective.
- Do fewer things better Minimizing activities to include only those that facilitate value will allow more time and resources to focus on quality.
- Respect people’ s time A process that is too complicated and bureaucratic is a poor use of the time of the people involved.
- Easier to understand, easier to adopt To embed a practice, ensure that it is easy to follow.
- Maximize quick wins Quick wins allow organizations to demonstrate progress and manage stakeholder expectations. Working iteratively with feedback will quickly deliver incremental value at regular intervals.

8.2.7 Optimize and automate

Organizations must maximize the value of the work performed by their human and technical resources. The four dimensions model provides a holistic view of the various constraints, resource types, and other areas that should be considered when designing, managing, or operating organizations. Technology can help organizations to scale up and automate frequent or repetitive tasks, allowing human resources to be used for more complex decision-making. However, technology should not always be relied upon, as too much

automation can increase costs and reduce organizational resilience.

Automation typically refers to the use of technology to perform a step or series of steps correctly and consistently with limited or no human intervention. For example, in organizations adopting continuous deployment, it refers to the automatic and continuous release of code from development through to the live environment. In its simplest form, automation can also mean the standardization and streamlining of manual tasks, such as defining rules for a part of a process to allow decisions to be made 'automatically'. Reducing the need for individuals to stop and evaluate each part of a process can greatly increase efficiency.

Opportunities for automation can be found across the entire organization, and can help to reduce costs and human error and improve employee experience.

8.3 Summary

Too often, organizations fail to leverage opportunities to maximize value because they have not embedded the methodologies and techniques embodied by the ITIL guiding principles into their culture, or because they rely too heavily on familiar methods of direction, planning, and improvement, and well-established leadership styles. Organizations should aim to become familiar and comfortable with many different tools and techniques, so that they are able to apply the best solution to any given situation.

9 Conclusion

This publication has addressed a wide range of concepts, principles, methods, and techniques that can be leveraged whenever a person or organization needs to give direction to others, engage in planning courses of action, or lead or participate in improvement activities of any kind at any organizational level. Using this guidance and the guidance available in the rest of ITIL4, teams and individuals can be significant forces in the efforts of their organization to adopt a service management approach and demonstrate a service mindset in all of its activities.

To start directing, planning, and improving, we recommend following the ITIL guiding principle of 'start where you are'. This principle, in combination with the ITIL continual improvement model, can help an organization to define a baseline and take its next steps towards a future state.

When moving forward, it is particularly important that you avoid working in isolation, and remember to collaborate and promote transparency whenever possible. Service management is essentially an interactive occupation; working together towards a common purpose is the right way to proceed. Individuals can work within their own scopes of control, but they can also contribute to and influence work on those aspects of service management that are outside of their scopes of control.

As each person prepares to participate in, lead, and influence service management in their organization, they should ask themselves these questions:

- Do I have a clear concept of what service management means to me?
- Is service management as I understand it something that I believe in? Do I believe that there is practical value in these ideas?
- Do I have the skills, knowledge, and experience to maximize my contributions to my organization's service management journey?
- Am I happy with the answers to these questions?
- What are my next steps on my own service management journey?

ITIL4 offers a great deal that can help make a service-oriented, value-focused organization a reality; but no single framework, methodology, body of knowledge, or standard can be everything to everyone. You should take what you learn here and build on it through formal education, informal reading, and, most of all, practical experience in collaboration with others. We hope the guidance in this publication will help you to provide and take direction that is clear and useful, make and maintain plans that efficiently and effectively manage the work necessary to pursue a course of action, and lead and contribute to improvements of all kinds. This journey leads to excellence in service management and the co-creation of value for all.

To get the most out of ITIL4 Direct, Plan and Improve, it should be studied alongside the ITIL management practice guides, which are available online and provide detailed, practical recommendations for all 34 general management, service management, and technical management practices. They include hands-on guidance that can be applied in the context of all four ITIL4 Managing Professional publications.

All ITIL publications are holistic and focused on value. They address the four dimensions of service management and help to manage resources in a way that enables value creation for the organization, its customers, and other stakeholders.

ITIL4 Drive Stakeholder Value contains guidance on establishing, maintaining, and developing effective service relationships. It leads organizations on a service journey in their roles as service provider and service consumer, helping them to interact and communicate effectively at every step.

ITIL4 Create, Deliver and Support provides guidance on the cultural and team management aspects of product and service management, and an overview of the various tools and technologies that support service management. It demonstrates how to integrate management practices into end-to-end value streams.

ITIL4 High Velocity IT provides detailed guidance on comprehensive digital transformation and helps organizations o evolve towards a convergence of business and technology, or to establish a new digital organization.