ITIL®

ITIL® 4 Foundation

Learner Workbook



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About this material

This course is for anyone who is preparing to sit the ITIL 4 Foundation examination. The aim is to provide you with a practical understanding of the key concepts, common language, principles, and practices that enable successful service management.

The Learner Workbook has been designed to help you prepare for the ITIL 4 Foundation examination. It provides guidance and an overview of the course's examinable content. This Learner Workbook also includes questions/quizzes, activities, and sample papers with answers and rationales. The workbook is designed to reinforce learning and add value to your course experience. The workbook also includes valuable resources, which will enhance your learning and understanding of the material.

Do not forget to use the Official Book during the course, as it provides further information on the modules explored in the Learner Workbook. The Syllabus Index provided at the end of the workbook will help you identify the sections of the Official Book referenced throughout the material.

To help you identify what is core content and what is extended content, the module slide decks feature colour-coded borders. The slides that feature a **purple border** are **core content** and those with a **grey border** are optional **extended content** such as activities and quizzes that will allow you test your knowledge.



Aims of the course

The overall aim of this course is to enable you to gain a pass mark in the ITIL 4 Foundation examination. To pass the exam, you will need to:

- understand how the ITIL 4 service management framework has evolved to adopt modern technologies and ways of working
- recall the common language and the key concepts of ITIL
- gain an overall understanding of how to manage modern IT-enabled services
- know how to use the ITIL 4 guidance to improve your work and the work of the organization.
-

The ITIL® 4 Foundation examination

The examination is designed to assess whether you can demonstrate sufficient recall and understanding of the ITIL 4 service management framework, as described in the syllabus. The ITIL 4 Foundation certification is a prerequisite for studying ITIL 4 at a higher level.
Two sample Foundation papers are available for you to practise during the course. These will help you to become confident in your understanding of ITIL 4, and familiarize you with the style and structure of the exams.

Take advantage of the mock exams and set yourself up for success! Mock exams are one of the best ways to engage in practice and tackle exam anxiety.

You will sit a one-hour examination. All questions are multiple-choice and there is only one correct answer per question.

Remember, this is a closed book exam, so you must not have any notes or resources available.

You will need to answer 26 out of 40 questions correctly to pass.

You can always use the Take[2] resit option, which is available at a fraction of the original exam price, if you require another attempt.

Information icons

	Objectives
	Timed activity
	Discuss/reflect/activity
	Think about/question and answer
	Key learning points
	Detailed ITIL practice
	Review or multiple choice question
	The slides that feature a **purple border** are **core content**
	The slides that feature a **grey border** are optional **extended content**

Module 1
Introduction

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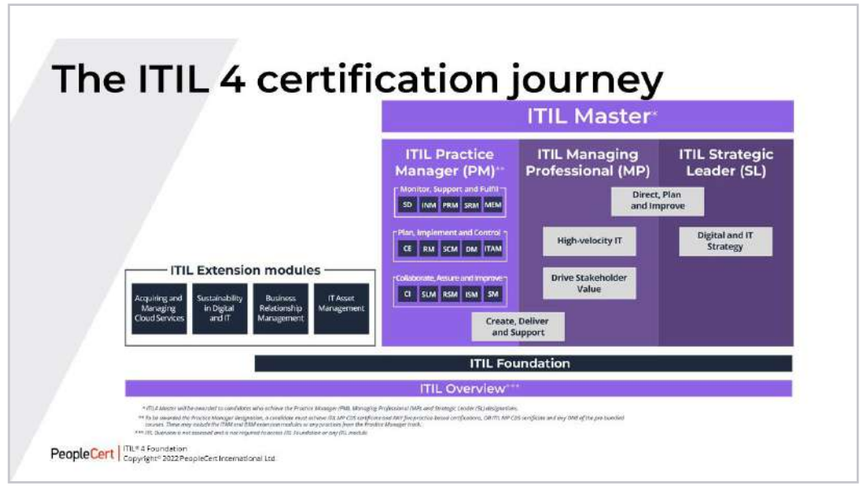
1. Introduction



ITIL has led the ITSM industry with the provision of guidance, training, and certification programmes for more than 30 years. ITIL 4 brings ITIL up-to-date, by reshaping much of the established ITSM practices within the wider context of the customer experience, value streams, and digital transformation, as well as embracing new ways of working, such as Lean, Agile, and DevOps.

The ITIL 4 Foundation qualification is intended to introduce learners to the management of modern IT-enabled services, to provide them with an understanding of the common language and key concepts, and to show them how they can improve their work and the work of their organization with ITIL 4 guidance.

Notes



As part of the certification process, you will need to complete an exam. The exam will test both your recall of information about ITIL 4 and your understanding of the concepts.

Note that achievement of ITIL 4 Foundation is a prerequisite for the ITIL Managing Professional, ITIL Strategic Leader and ITIL Practice Manager designations.It is also a prerequisite if you want to study for the ITIL Specialist extension modules: Acquiring and Managing Cloud Services, Sustainability in Digital and IT, Business Relationship Management and IT Asset Management.

Notes

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Module 2
Key concepts of service management

2.1 The concept of value

2.2 Stakeholder and service consumer roles

2.3 Service offerings

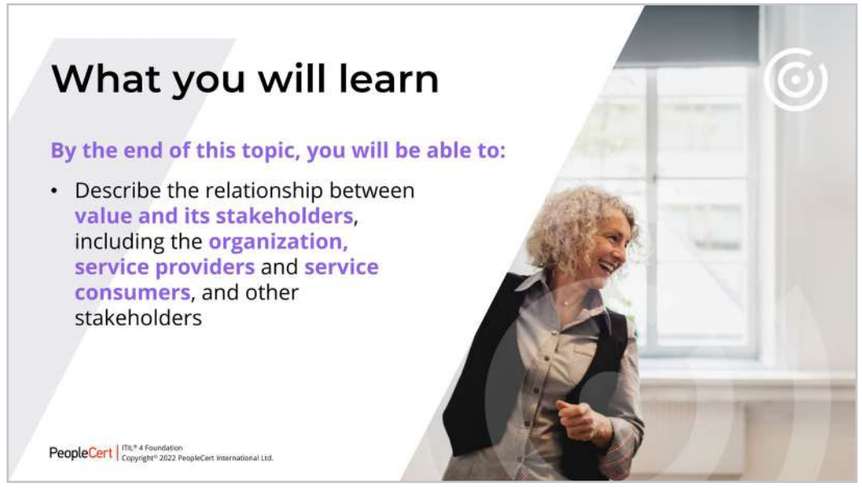
2.4 Creating value with services



2.1 The concept of value

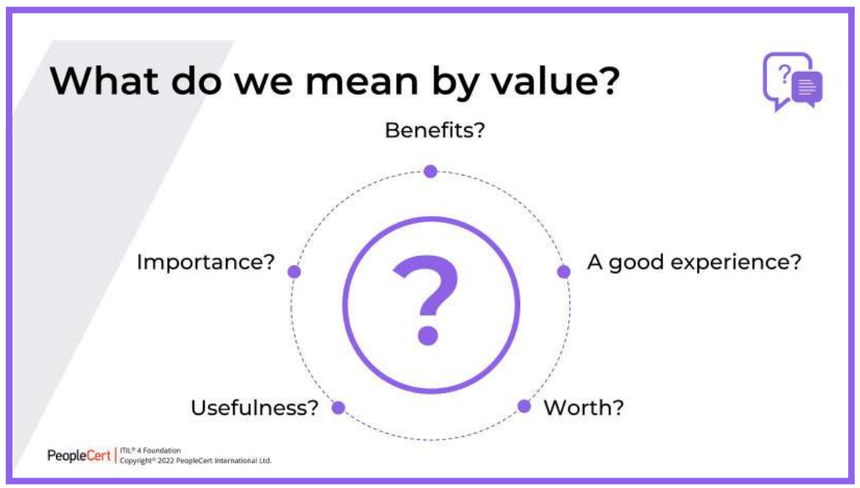


This slide outlines the key syllabus topics that will be covered in this session. You will find similar slides throughout the course.



This slide outlines the key learning points that will be covered in this topic.

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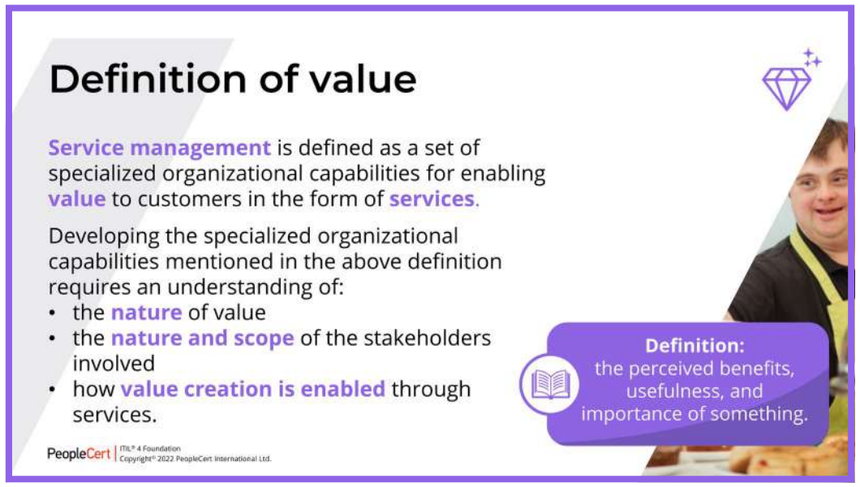


Value can mean different things for different people. It can be objective and quantifiable. It can be subjective and linked to emotional response. It can sometimes be both.



Axle Car Hire provides a number of services which create value both for them and their customers.

Notes



The definition of value is the perceived benefits, usefulness, and importance of something.

Service management is defined as a set of specialized organizational capabilities for enabling value to customers in the form of services.

Inherent in this definition is the understanding that value is subject to the perception of the stakeholders, whether they are the customers or consumers of a service, or part of the service provider organization(s). Value can be subjective.

A service is a means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risk.

Notes



An organization is any person or group of people that has its own functions with responsibilities, authorities, and relationships that operate in an integrated, coordinated way to facilitate value creation and fulfil a common set of objectives. Organizations vary in size and complexity, and in their relation to legal entities, from a single person or a team, to a complex network of legal entities united by common objectives, relationships, and authorities.



Value between organizations is created in different ways depending on how those organizations operate.

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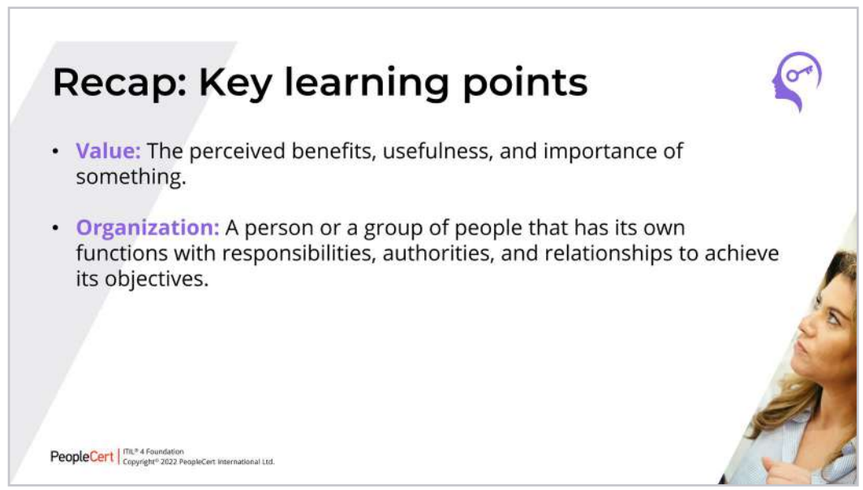


To create value, an organization must do more than simply provide a service. It must also cooperate with the consumers in service relationships. Service relationships are established between two or more organizations to co-create value. In a service relationship, organizations will undertake the roles of service providers or service consumers. The two roles are not mutually exclusive, and organizations typically both provide and consume several services at any given time.



More and more, organizations recognize that value is co-created through an active collaboration between providers and consumers, as well as other organizations that are part of the relevant service relationships.

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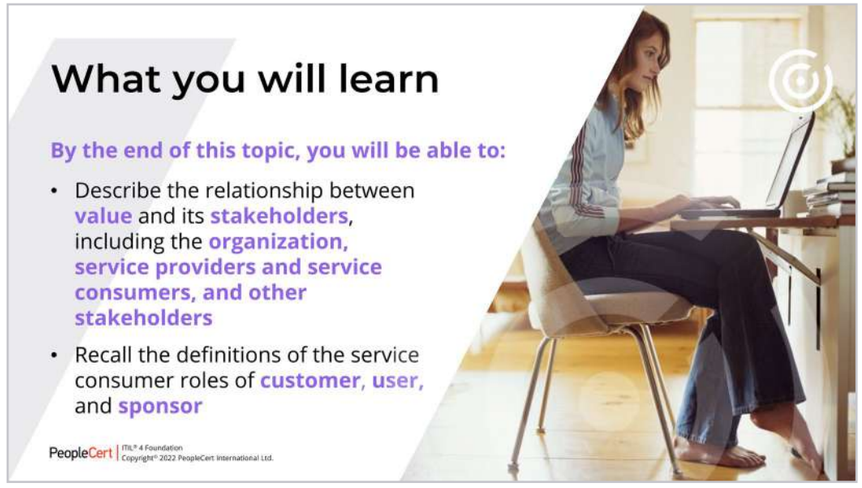


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Notes

2.2 Stakeholder and service consumer roles





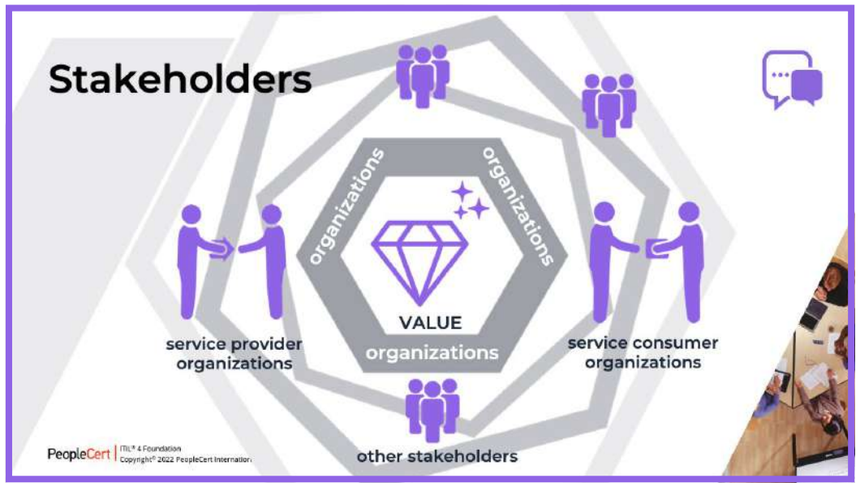
This slide outlines the key learning points that will be covered in this topic.

Notes



Anyone with a vested interest in your service or in value co-creation can be a stakeholder.

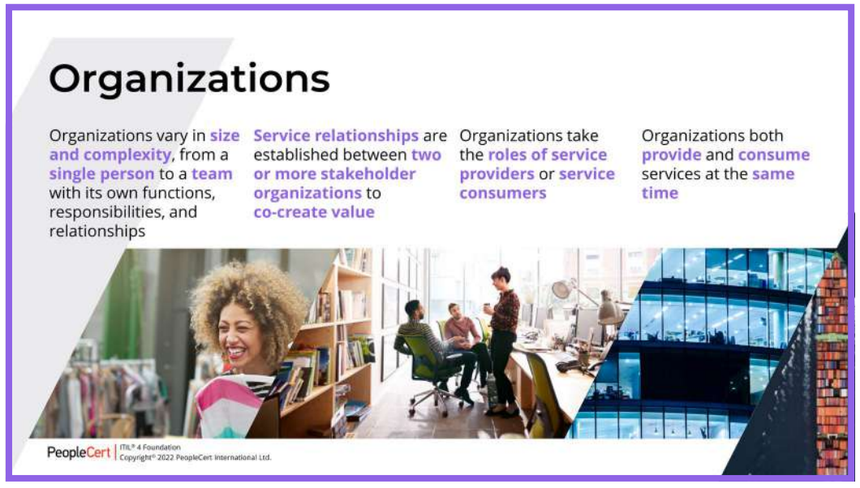
Notes



Stakeholders fall into one of three categories:

- service providers
- service consumers
- other stakeholders.

Stakeholders in any of these categories could be organizations or individuals.



Organizations vary in size and complexity, from a single person to a team with its own functions, responsibilities, authorities, and relationships to achieve their objectives. Service relationships are established between two or more stakeholder organizations to co-create value. In a service relationship, organizations take the roles of service providers or service consumers. The two roles are not mutually exclusive.

Notes

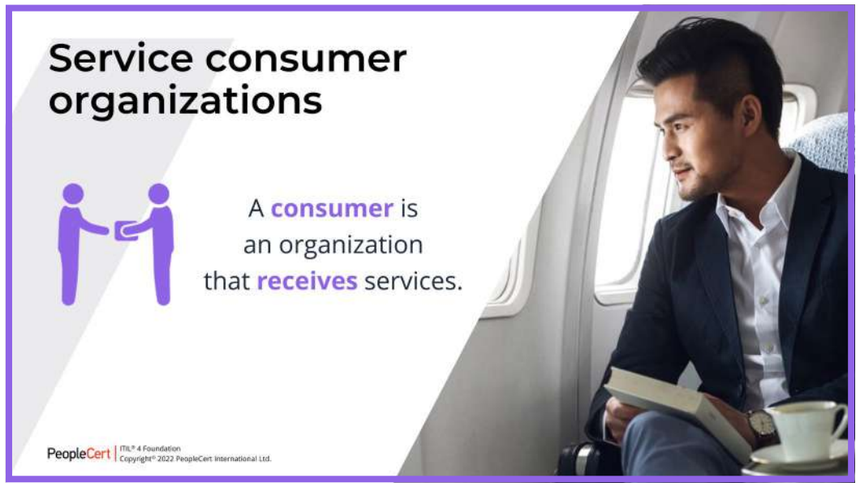


An organization that undertakes the role of creating and delivering services through a service relationship is called a service provider.



This slide highlights the fact that organizations are usually providers and consumers at the same time. Axle uses the resources provided by other businesses to enable it to provide its own services.

Notes



When an organization takes the role of receiving services, it is called a service consumer. Some consumers will be individuals, while others will be organizations.

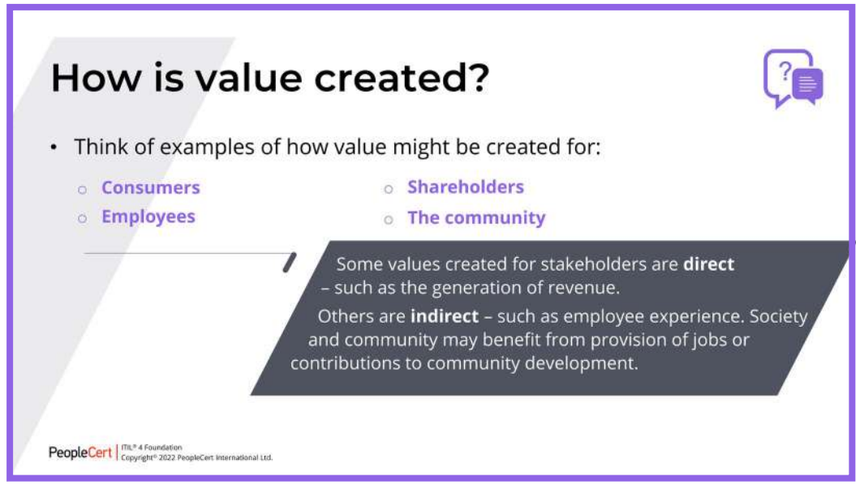


Axle provides car hire services to, for example, Ichika, Faruq, and Food for Fuel, so they are all service consumers of Axle Car Hire.

Notes

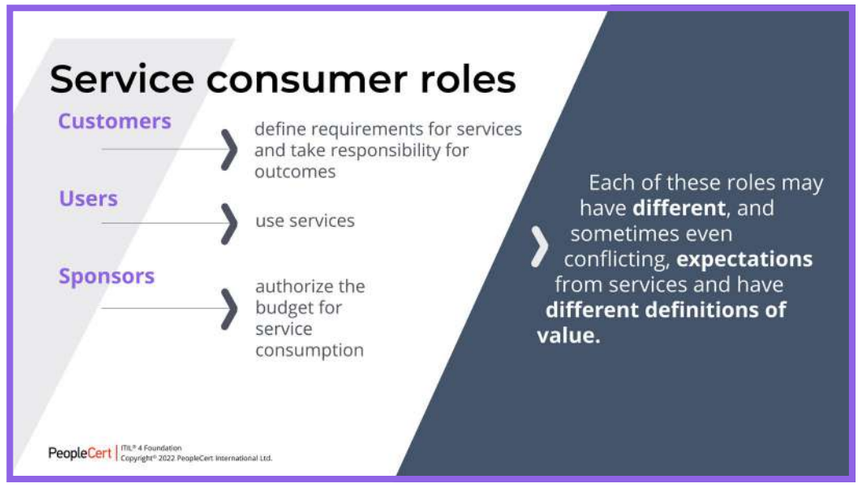


There are many other stakeholders, including employees of the provider organization, partners and suppliers, investors and shareholders, government organizations, and social groups. Products and services create value for stakeholders in different ways.



Value can take different forms for different stakeholder groups. Some benefits are direct, like the generation of revenue. Others are more indirect, such as employee experience.

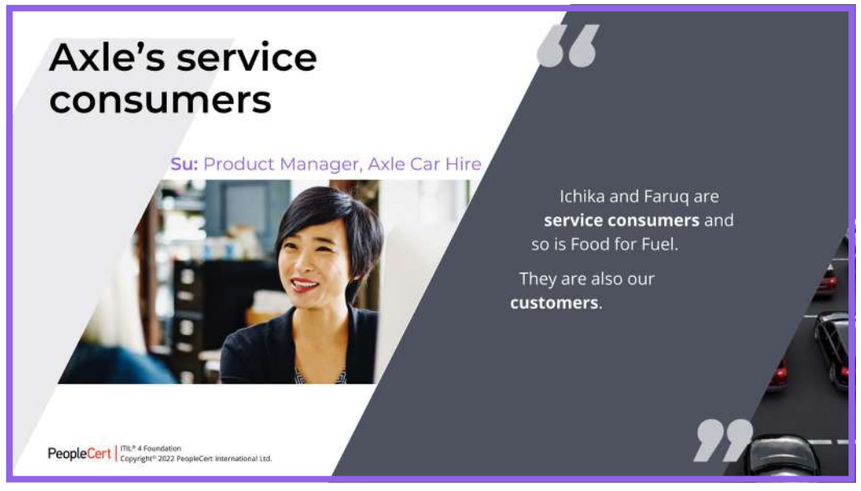
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In practice, there are some specific roles involved in service consumption. These roles are:

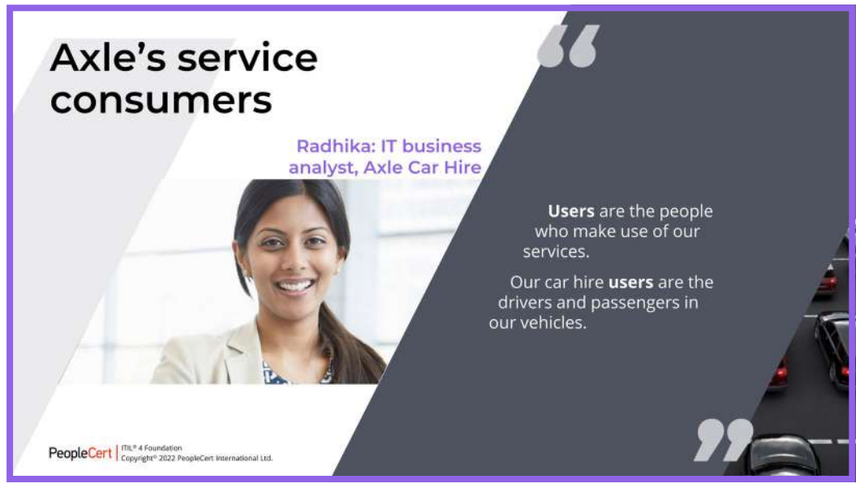
- **customers** who define requirements for services and take responsibility for outcomes
- **users** who use services
- **sponsors** who authorize the budget for service consumption.

Each of these roles may have different, and sometimes even conflicting, expectations from services, and have different definitions of value.



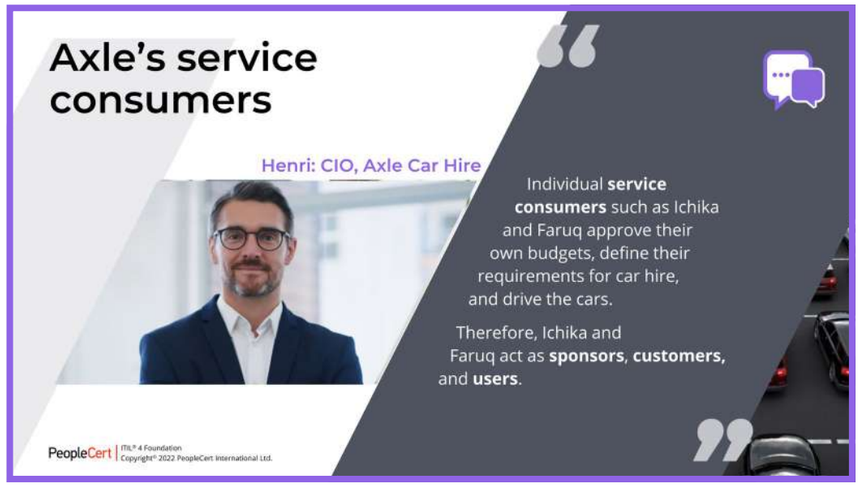
Axle Car Hire has a wide range of service consumers. Each employee of the business will interact with different groups of consumers. The following slides outline Axle's different types of consumers.

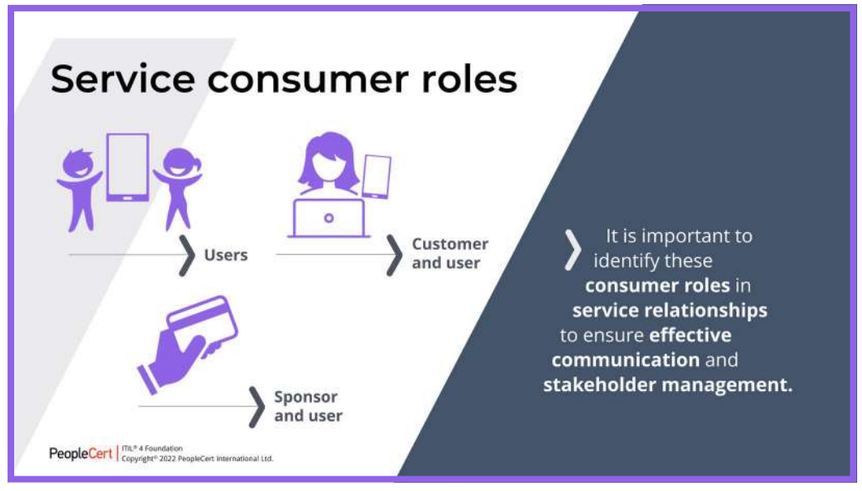
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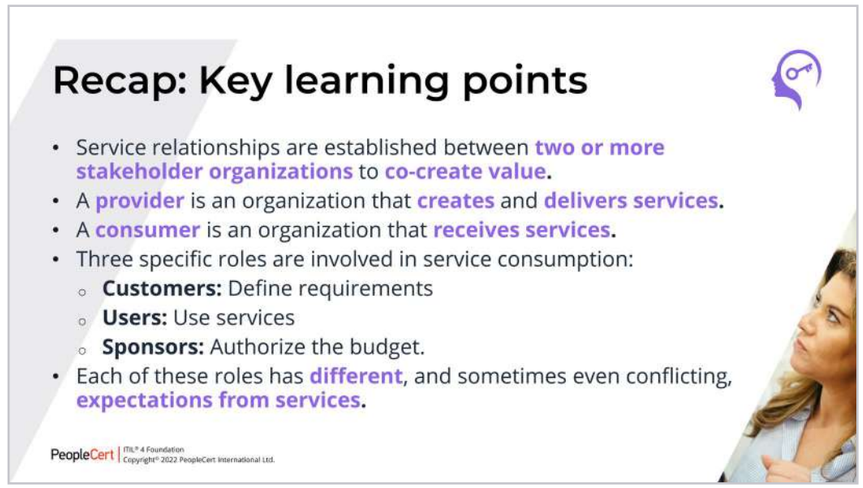
Notes





It is important to identify the different consumer roles in service relationships to ensure effective communication and stakeholder management. Understanding how each role defines value will be beneficial to the service provider when interacting with them.

Notes

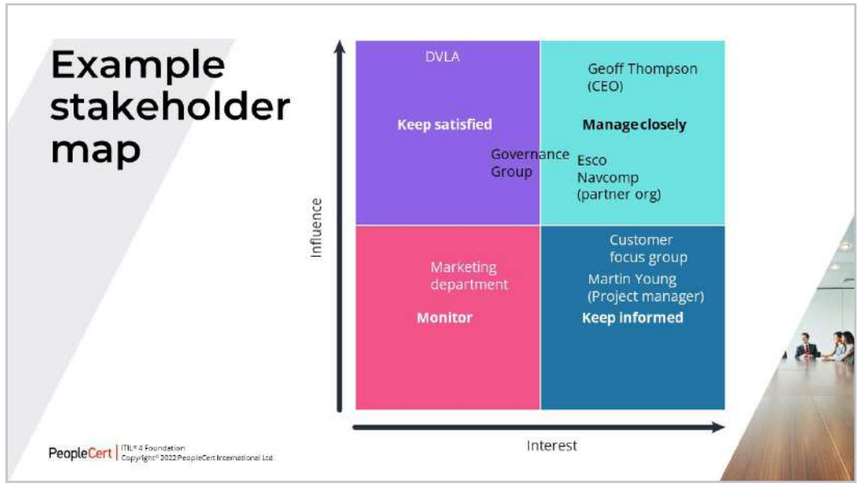


This slide outlines the key learning points that were covered in this topic

Notes

Activity – Stakeholder and service consumer roles

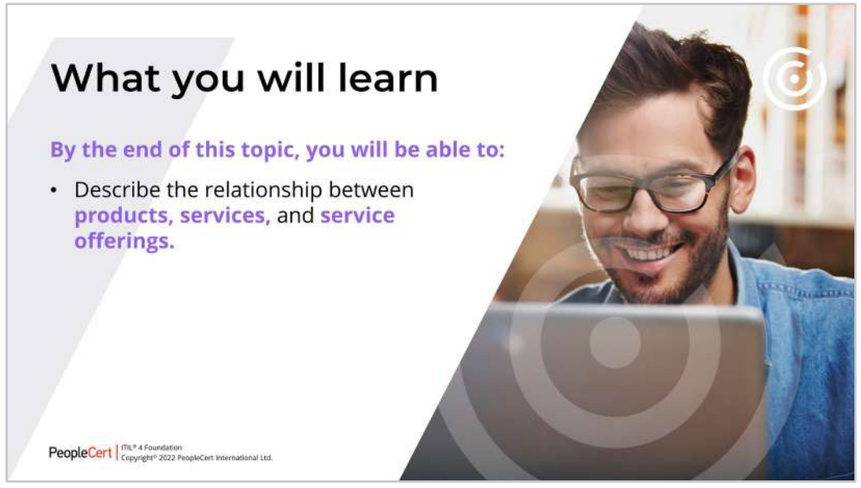




Notes

2.3 Service offerings





This slide outlines the key learning points that will be covered in this topic.

Notes

Module 2
Key concepts of service management



The services that organizations provide are based on one or more of their products.

A product is a configuration of an organization's resources designed to offer value for a consumer. Organizations own or have access to a variety of resources, including people, information and technology, value streams and processes, and suppliers and partners. Each product is created with several target consumer groups (either internal or external to the organization) in mind, and the products will be tailored to appeal to, and meet the needs of, these groups.

A product is not exclusive to one consumer group and can be used to address the needs of several different groups. For example, a software service can be offered as a lite version, for individual users, or as a more comprehensive corporate version.

Products are typically complex and are not fully visible to the consumer. The portion of a product that the consumer actually sees does not always represent all of the components that comprise the product and support its delivery.

Organizations define which product components their consumers see, and tailor them to suit their target consumer groups.

Notes



This slide outlines some of Axle Car Hire's products. Although the cars the organization offers for hire are its most obvious products, there are many other products to consider as well.



It is important to understand the nature of a service and the relationship between a service and a product. A service is a means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks. Services are based on one or more of an organization's products, which as we have seen are a configuration or combination of the organization's resources.

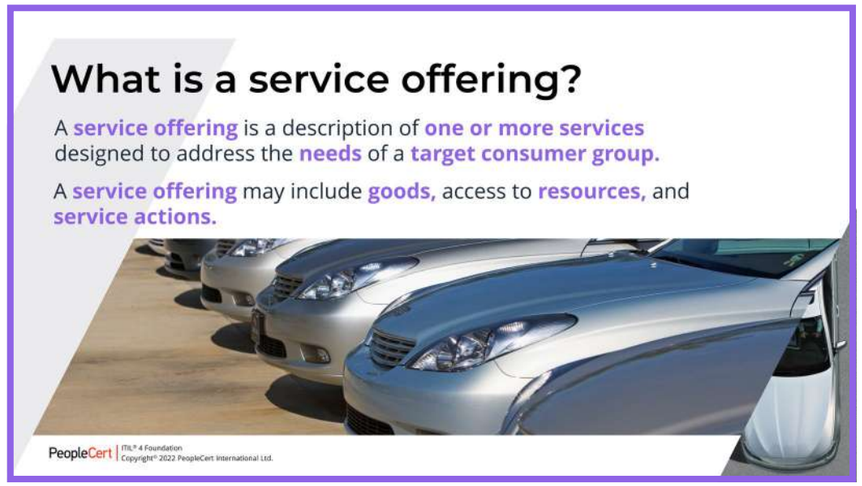
Notes



Consider what services Axle provides, and how these help their customers to avoid certain costs and risks.



Notes



Service providers present their services to consumers in the form of service offerings. A service offering is a description of one or more services designed to address the needs of a target consumer group.

Notes



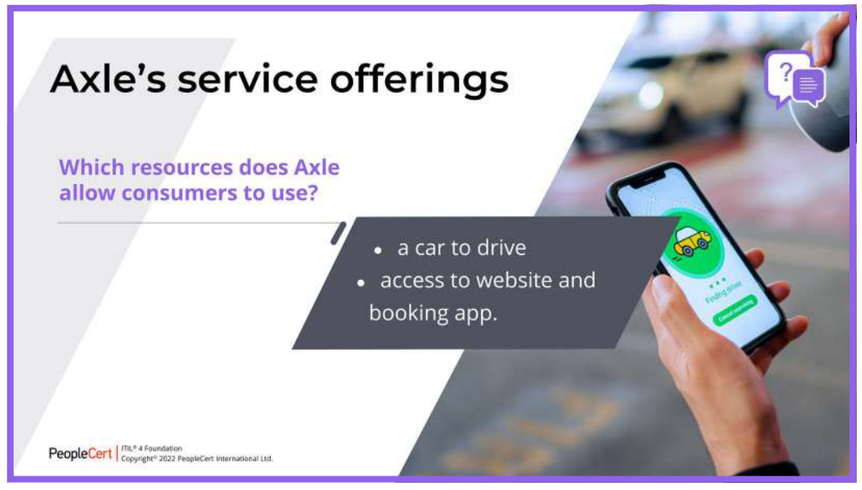
Service offerings may include:

- Goods to be supplied to a consumer (for example, a mobile/cell phone). Goods are transferred from the provider to the consumer, with the consumer taking the responsibility for their future use.
- Access to resources is granted or licensed to a consumer under agreed terms and conditions (for example, to the mobile network, or to the network storage). The resources remain under the provider's control and can be accessed by the consumer only during the agreed service consumption period.
- Service actions performed to address a consumer's needs (for example, user support). These actions are performed by the service provider, according to the agreement with the consumer.

Notes

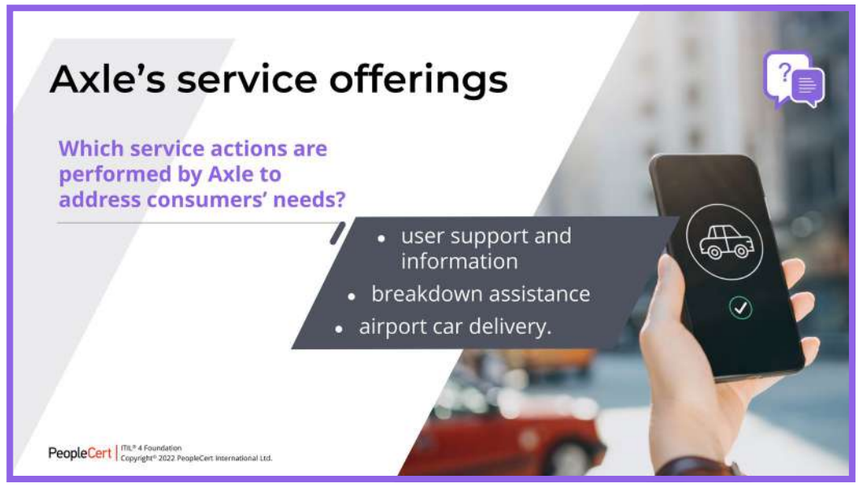


How many goods can you identify that Axle supplies to its consumers?

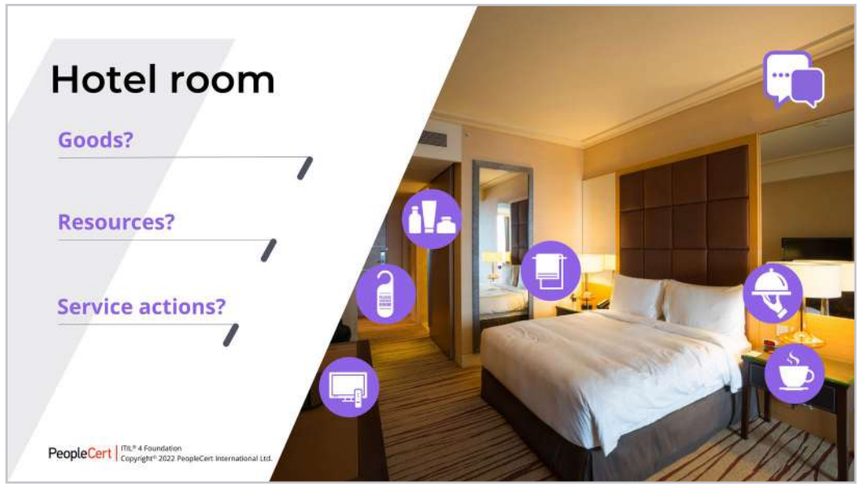


How many resources can you identify that Axle allows its consumers to use?

Notes



How many service actions can you identify that are performed by Axle to address its consumers' needs?



Consider a hotel room. What goods, resources and service actions can you identify here?

Notes

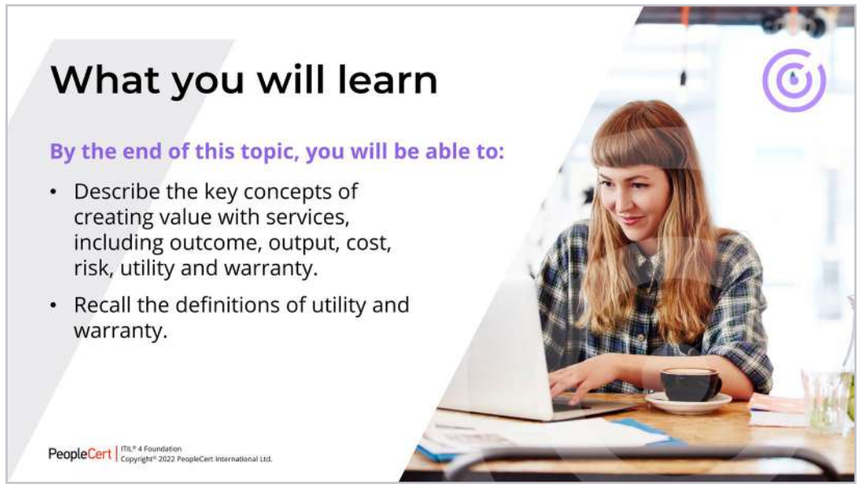


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Notes

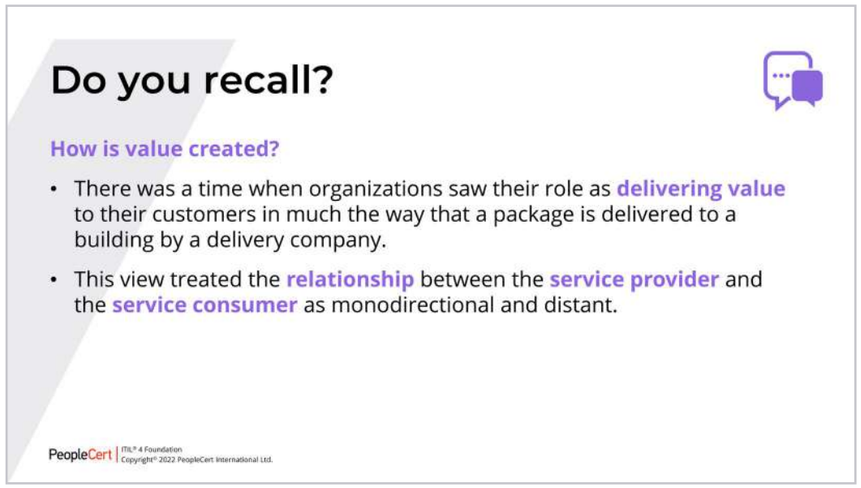
2.4 Creating value with services





This slide outlines the key learning points that will be covered in this topic.

Notes



Historically, organizations' views on value were different:

- There was a time when organizations saw their role as delivering value to their customers in much the same way that a package is delivered to a building by a delivery company.
- This view treated the relationship between the service provider and the service consumer as one directional and distant.

Notes



Value co-creation requires collaboration between the provider and the consumer; they have a mutually beneficial, interactive relationship. At one time, the prevalent thinking was that the provider delivers the service, and the consumer receives value; the consumer plays no role in the creation of value for themselves. This definition was part of ITIL v3; however, this fails to consider the highly complex and interdependent service relationships that exist in reality.

Increasingly, organizations recognize that value is co-created through an active collaboration between providers and consumers, as well as other organizations that are part of the relevant service relationships.

Providers should no longer attempt to work in isolation to define what will be of value to their customers and users, but should actively seek to establish mutually beneficial, interactive relationships with their consumers, empowering them to be creative collaborators in the service value chain. Stakeholders across the service value chain contribute to the definition of requirements, the design of service solutions, and even to the service creation and/or provisioning itself.

Notes



When provisioning services, an organization undertakes the role of the service provider. The provider can be external to the consumer's organization, or they can both be part of the same organization. In more traditional views of ITSM, the provider organization is seen as the IT department of a company, and the other departments or other functional units in the company are regarded as the consumers. This is, however, only one very simple provider, the consumer model.

A provider could be selling services on the open market to other businesses, to individual consumers, or it could be part of a service alliance, collaborating to provide services to consumer organizations. The key is that the organization in the provider role has a clear understanding of who its consumers are in a given situation, and who the other stakeholders are in the associated service relationships.

Notes



Axle Car Hire acts as a service provider for some organizations, while also acting as a service consumer for others.



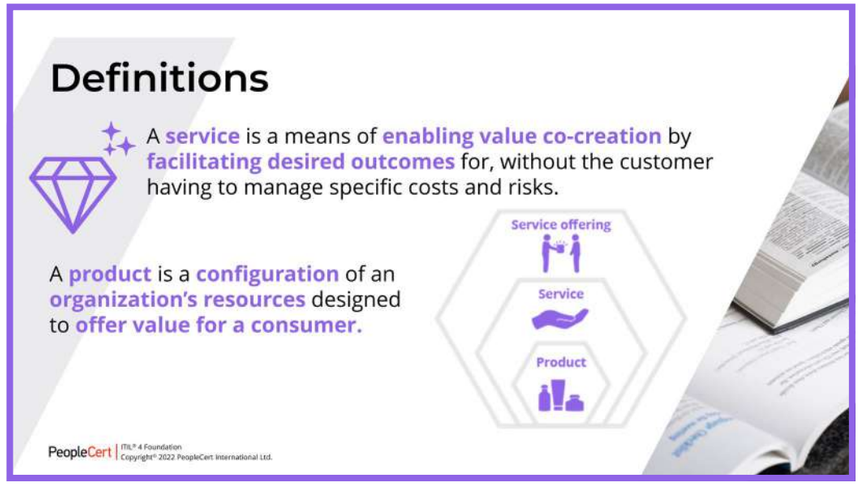
The service consumer is a generic role that is used to simplify the definition and description of the structure of service relationships. In practice, there are more specific roles involved in service consumption, such as customers, users, and sponsors. These roles can be separate or combined.

Notes



The central component of service management is, of course, the service. The services that an organization provides are based on one or more of its products.

Notes



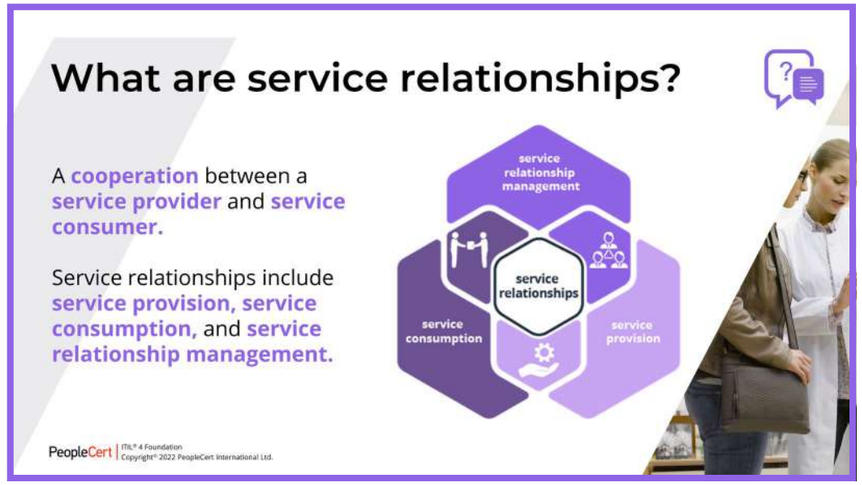
A service is a means of enabling value co-creation by facilitating desired outcomes, without the customer having to manage specific costs and risks.

A product is a configuration of an organization's resources designed to offer value for a consumer.

Each product an organization offers is created with several target consumer groups in mind, and the products will be tailored to appeal to, and meet the needs of, these groups. A product is not exclusive to one consumer group and can be used to address the needs of several different groups. For example, a software service can be offered as a lite version, for individual users, or as a more comprehensive corporate version.

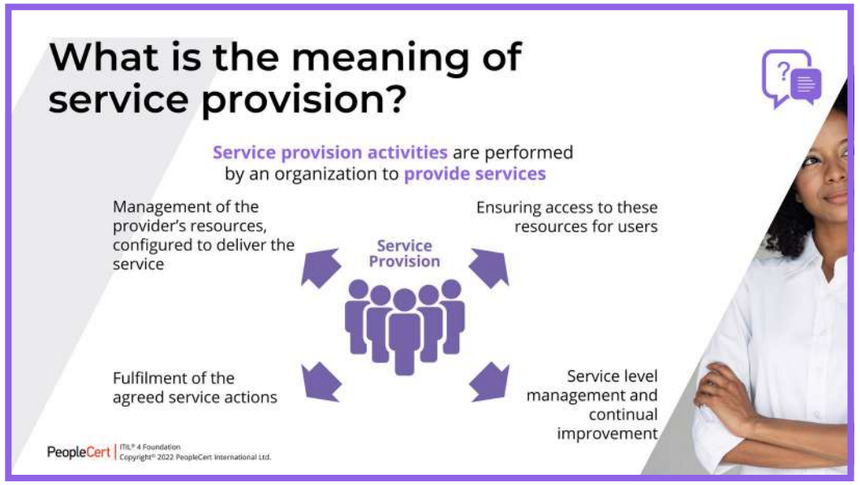
Products are typically complex and are not fully visible to the consumer. The portion of a product that the consumer actually sees does not always represent all of the components that comprise the product and support its delivery. Organizations define which product components their consumers see, and tailor them to suit their target consumer groups.

Notes



Service relationships are a cooperation between a service provider and service consumer. Service relationships include service provision, service consumption, and service relationship management.

Notes



Service provision activities are performed by an organization to provide services.

Service provision includes:

- management of the provider's resources, configured to deliver the service
- ensuring access to these resources for users
- fulfilment of the agreed service actions
- service level management and continual improvement.
- service provision may also include the supplying of goods.

Notes



Service consumption involves activities performed by an organization to consume services. Service consumption includes:

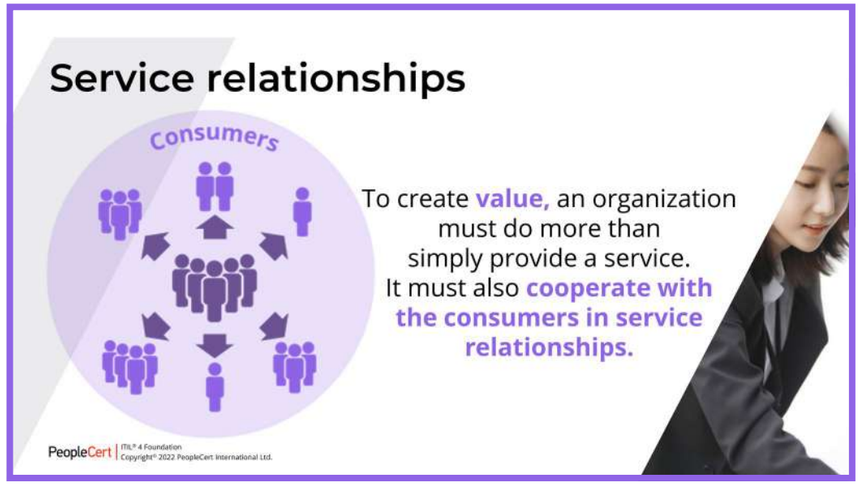
- the management of the consumer's resources needed to use the service
- the service actions performed by the users, including utilizing the provider's resources and requesting service actions to be fulfilled.

Service consumption may also include the receiving (acquiring) of goods.



Service relationship management constitutes 'joint activities performed by a service provider and a service consumer to ensure continual value co-creation, based on agreed and available service offerings'. Providers should no longer attempt to work in isolation to define what will be of value to their consumers, but actively seek to establish mutually beneficial, interactive relationships with their consumers, empowering them to be creative collaborators.

Notes



To create value, an organization must do more than simply provide a service. It must also cooperate with the consumers in service relationships.

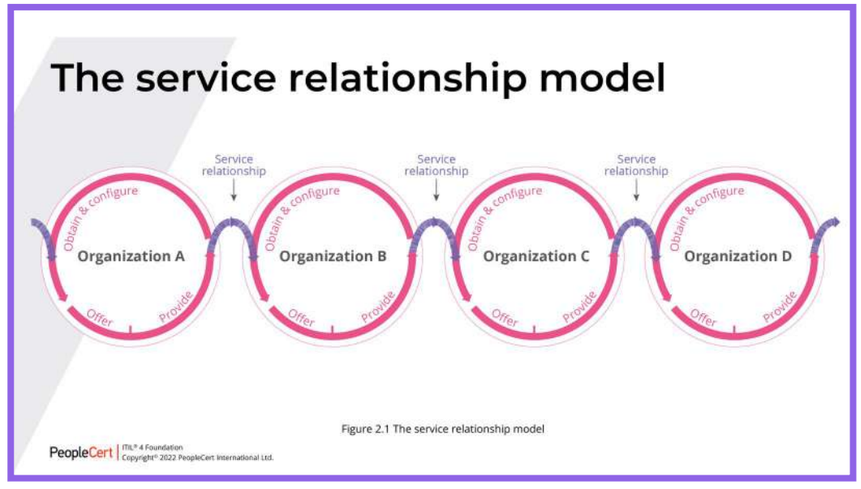


Service relationships are established between two or more organizations to co-create value. In a service relationship, organizations will undertake the roles of service providers or service consumers. The two roles are not mutually exclusive, and organizations typically both provide and consume several services at any given time.

Notes



Axle Car Hire has many service relationships with service providers and consumers that are both internal and external.



When services are delivered by the provider, they create new resources for service consumers or modify their existing ones. For example:

- A training service improves the skills of the consumer's employees.
- A broadband service allows the consumer's computers to communicate.
- A car hire service enables the consumer's staff to visit clients.
- A software development service creates a new application for the service consumer.

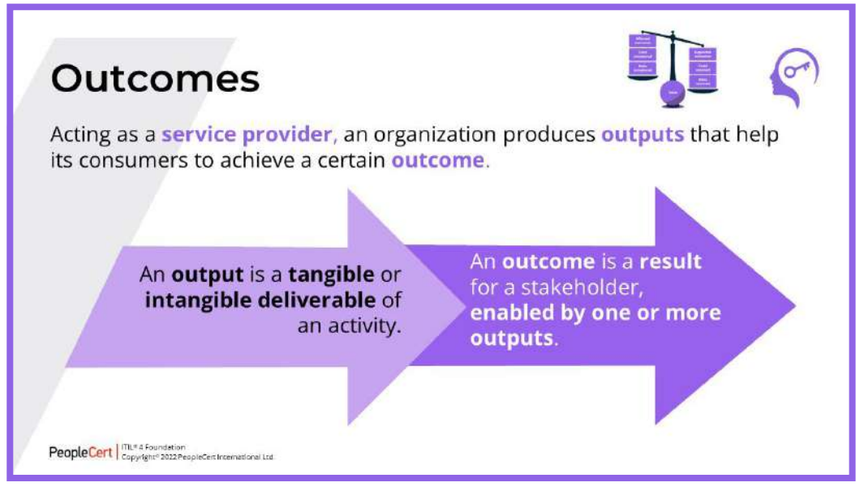
Notes



Figure 2.2 Achieving value: outcomes, costs, and risks

Achieving a desired outcome requires resources (and therefore costs) and is often associated with risks. Service providers help their consumers to achieve outcomes and in doing so, undertake some of the associated risks and costs. On the other hand, service relationships can introduce new risks and costs and in some cases, can negatively affect some of the intended outcomes while supporting others.

Notes



Acting as a service provider, an organization produces outputs that help its consumers to achieve a certain outcome.

An output is a tangible or intangible deliverable of an activity.

An outcome is a result for a stakeholder enabled by one or more outputs.

It is important to be clear about the difference between outputs and outcomes. For example, one output of a wedding photography service might be an album in which selected photos are artfully arranged. The outcome of the service, however, is the preservation of memories and the ability of the couple and their family and friends to easily recall those memories by looking at the album. Depending on the relationship between the provider and the consumer, it can be difficult for the provider to fully understand the outcomes that the consumer wants to achieve. In some cases, they will collaborate to define the desired outcomes.

For example, business relationship managers (BRMs) in internal IT or HR departments might regularly talk with customers and discuss their needs and expectations. In other cases, the consumers articulate their expectations quite clearly, and the provider expects them to do so, such as when standardized services are offered to a wide consumer group. This is how mobile operators, broadband service providers, and transport companies usually operate. Finally, some service providers predict or even create demand for certain outcomes, forming a target group for their services. This might happen with innovative services, addressing needs that consumers were not even aware of before. Examples of this include social networks or smart home solutions.

Notes

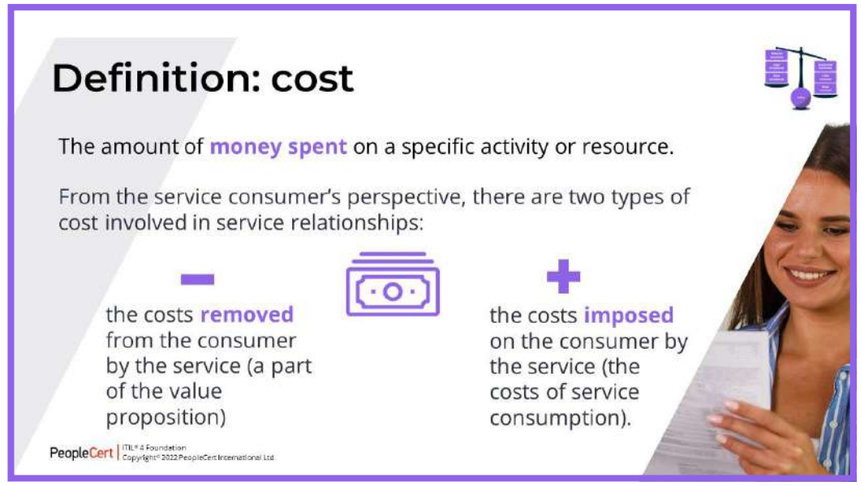


Axle Car Hire produces a number of outputs to help its consumer achieve their desired outcomes.



Axle 's service consumers achieve their desired outcomes through the outputs of Axle's services.

Notes



Cost is defined as the amount of money spent on a specific activity or resource.

From the service consumer's perspective, there are two types of cost involved in service relationships:

- Costs removed from the consumer by the service (a part of the value proposition). This might include the costs of staff, technology, and other resources, which the consumer does not need to provide.
- Costs that are imposed on the consumer by the service (the costs of service consumption).
- The total cost of consuming a service includes the price charged by the service provider (if applicable), plus other costs such as staff training, costs of network utilization, procurement, and so on. Some consumers describe this as what they must 'invest' to consume the service.

Both types of cost are considered when the consumer assesses the value, which they expect the service to create. To ensure that the correct decisions are made about the service relationship, it is important that both types of cost are fully understood.

From the provider's perspective, a full understanding of the cost of service provision is essential. Providers need to ensure that services are delivered within budget constraints and meet the financial expectations of the organization.

Notes



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

Risks do not just originate from taking action but can also be imposed by taking no action.

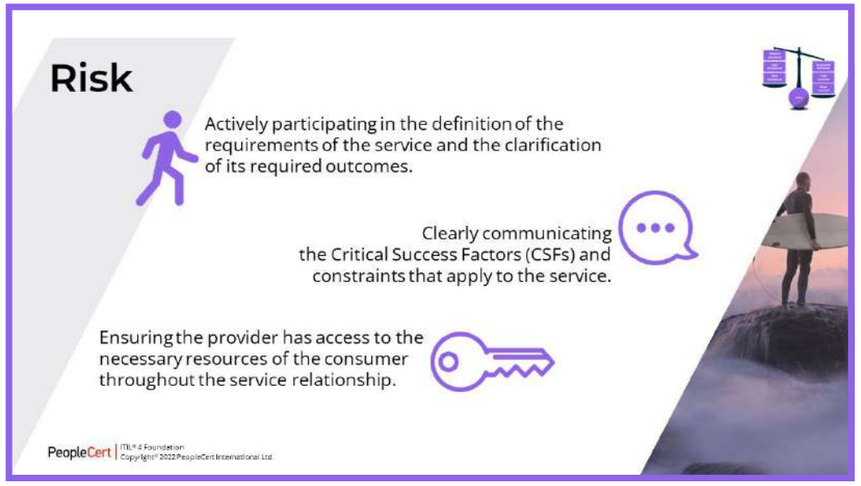
Notes



As with costs, there are two types of risk that are of concern to service consumers:

- The risks removed from a consumer by the service (part of the value proposition). These might include the failure of the consumer's server hardware or a lack of staff availability. In some cases, a service might only reduce a consumer's risks, but the consumer may determine that this reduction is sufficient to support the value proposition.
- The risks imposed on a consumer by the service (risks of service consumption). An example of this would be a service provider ceasing to trade or experiencing a security breach.

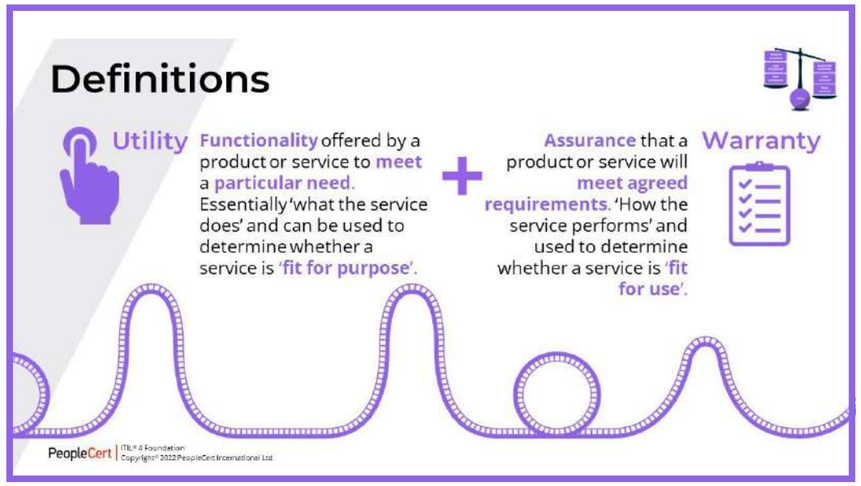
Notes



It is the duty of the service provider to manage the level of risk on behalf of the consumer. This should be handled based on a balance of what matters most to the consumer and to the provider. The consumer contributes to the reduction of risk through:

- actively participating in the definition of the requirements of the service and the clarification of its required outcomes
- clearly communicating the critical success factors (CSFs) and constraints that apply to the service
- ensuring the provider has access to the necessary resources of the consumer throughout the service relationship.

Notes

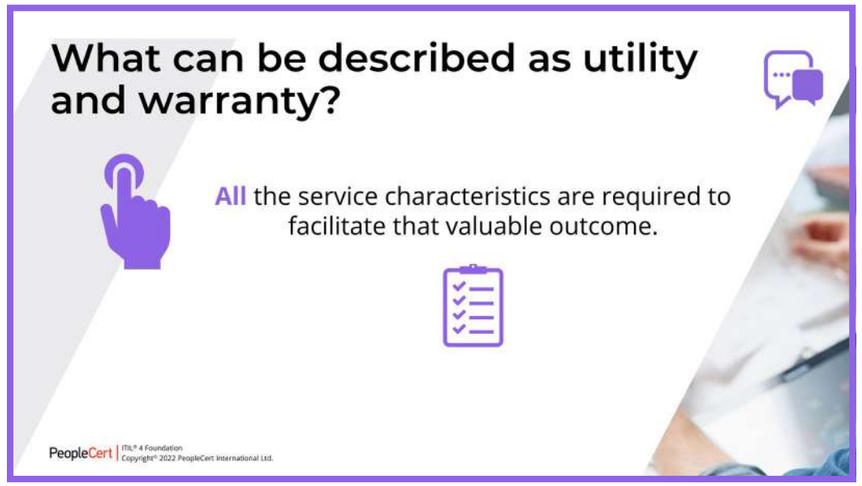


Utility is the functionality offered by a product or service to meet a particular need. Utility can be summarized as 'what the service does' and can be used to determine whether a service is 'fit for purpose'. To have utility, a service must either support the performance of the consumer or remove constraints from the consumer. Many services do both.

Warranty is assurance that a product or service will meet the agreed requirements. Warranty can be summarized as 'how the service performs' and can be used to determine whether a service is 'fit for use'. Warranty often relates to service levels aligned with the needs of service consumers. This may be based on a formal agreement, or it may be a marketing message or brand image. Warranty typically addresses such areas as the availability of the service, its capacity, levels of security, and continuity. A service may be said to provide an acceptable assurance, or 'warranty', if all defined and agreed conditions are met.

The assessment of a service must take into consideration the impact of costs and risks on utility and warranty to generate a complete picture of the viability of a service. Both utility and warranty are essential for a service to facilitate its desired outcomes and therefore help create value. For example, a recreational theme park may offer many exciting rides designed to deliver thrilling experiences for park visitors (utility), but if a significant number of the rides are frequently unavailable due to mechanical difficulties, the park is not fulfilling the warranty (it is not fit for use), and the consumers will not receive their expected value. Likewise, if the rides are always up and running during advertised hours, but they do not have features that provide the levels of excitement expected by visitors, the utility is not fulfilled, even though the warranty is sufficient. Again, consumers would not receive the expected value.

Notes



Both utility and warranty are essential service characteristics that are required to facilitate a valuable outcome.



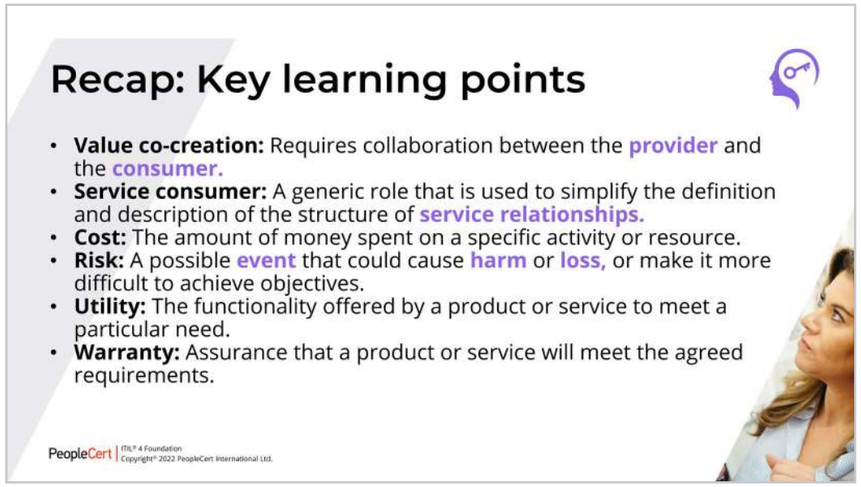
Axle Car Hire has decided to partner with a new supplier to improve its customer satisfaction ratings. The following slides outline their approach to bringing in a new supplier.

Notes

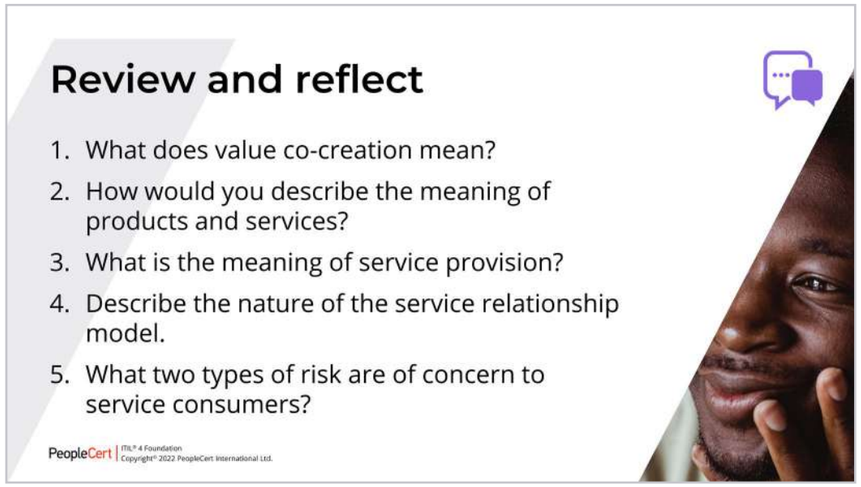




Notes



This slide outlines the key learning points that were covered in this topic.



Notes

Quiz

Questions:

1. A service is a means of enabling value co-creation by facilitating _____ that customers want to achieve.
   A. the warranty
   B. outcomes
   C. utility
   D. outputs

2. A service provider describes a package that includes a laptop with software, licenses, and support. What is this package an example of?
   A. value
   B. an outcome
   C. the warranty
   D. a service offering

3. Which term describes the functionality offered by a service?
   A. cost
   B. utility
   C. warranty
   D. risk

4. Which joint activity performed by a service provider and service consumer ensures continual value co-creation.
   A. service provision
   B. service consumption
   C. service offering
   D. service relationship management

5. What is a means of enabling value co-creation by facilitating outcomes that customers want to achieve?
   A. a service
   B. an output
   C. a practice
   D. continual improvement

Answers:

1. A service is a means of enabling value co-creation by facilitating _____ that customers want to achieve.
   A. the warranty
   B. outcomes
   C. utility
   D. outputs

   Correct. A service is 'a means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks'. Ref 2.3.1

2. A service provider describes a package that includes a laptop with software, licenses, and support. What is this package an example of?
   A. value
   B. an outcome
   C. the warranty
   D. a service offering

   Correct. Service providers define combinations of goods, and access to resources and service actions, to address the needs of different consumer groups. These combinations are called service offerings. Ref 2.3.2

3. Which term describes the functionality offered by a service?
   A. cost
   B. utility
   C. warranty
   D. risk

   Correct. Utility is 'The functionality offered by a product or service'. Ref 2.5.4

4. Which joint activity performed by a service provider and service consumer ensures continual value co-creation.
   A. service provision
   B. service consumption
   C. service offering
   D. service relationship management

   Correct. Service relationship management is 'Joint activities performed by a service provider and a service consumer to ensure continual value co-creation based on agreed and available service offerings'. Ref 2.4.1

5. What is a means of enabling value co-creation by facilitating outcomes that customers want to achieve?
   A. a service
   B. an output
   C. a practice
   D. continual improvement

   Correct. A service is 'A means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks'. Ref 2.3.1

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Module 3
Key concepts of ITIL 4

3.1 Four dimensions of service management

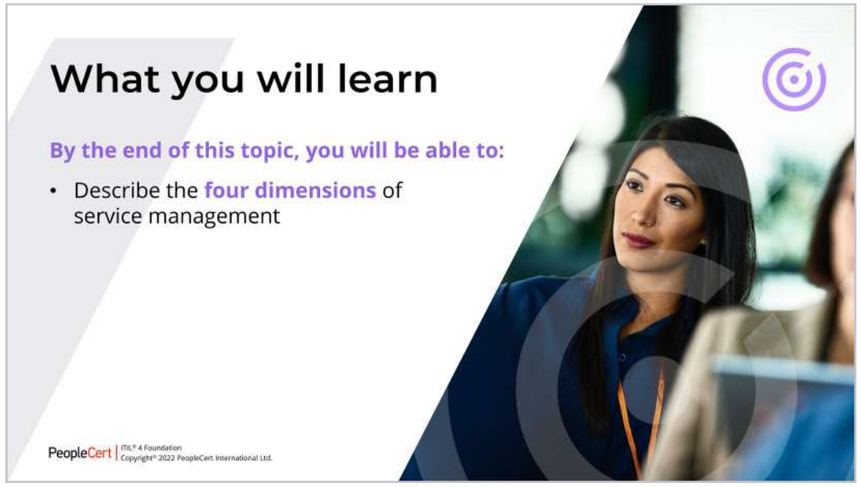
3.2 ITIL service value system

3.3 Service value chain



3.1 Four dimensions of service management





This slide outlines the key learning points that will be covered in this topic.

Notes



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.

These are:

- organizations and people
- information and technology
- partners and suppliers
- value streams and processes.

These 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. Any practice and any activity of the SVS can be explored through these four dimensions, and actually, must be explored in all of the dimensions, to be understood holistically.

Notes

Module 3
Key concepts of ITIL 4

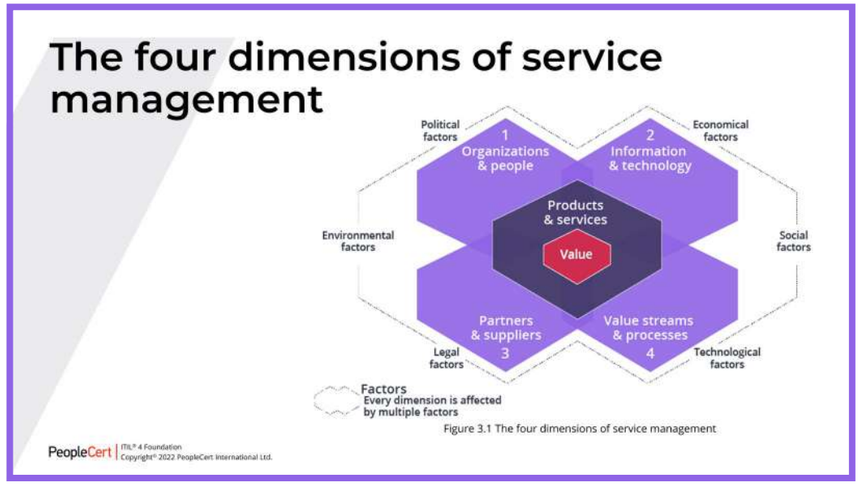


Figure 3.1 The four dimensions of service management

Failing to address all four dimensions properly may result in services becoming undeliverable, or not meeting the expectations for quality or efficiency. For example, failing to consider the value streams and processes dimension holistically can lead to wasteful work, duplication of efforts, or worse, work that conflicts with what is being done elsewhere in the organization. Equally, ignoring the partners and suppliers dimension could mean that outsourced services are misaligned with the needs of the organization. The four dimensions do not have sharp boundaries and may overlap. They will sometimes interact in unpredictable ways, depending on the level of complexity and uncertainty in which an organization operates.

It is important to note that the four dimensions of service management apply to all services being managed, as well as to the SVS in general. It is therefore essential that these perspectives should be considered for every service and that each one should be addressed when managing and improving the SVS at all levels.

The PESTLE external factors surround Figure 3.1. These can all be relevant to any of the four dimensions; do not assume they refer only to the ones they are close to. For example: asking a public sector client which of the dimensions was their weakest, they identified information and technology, explaining that they had servers still running an unsupported, unpatched version of Windows Server. These server issues had been caused by budget cuts, which were an economic fact. The city was in financial difficulty, which created a social climate of desire for fiscal responsibility, which created a political factor. A new mayor was elected on a promise to slash budgets, and did so. All of these external factors caused push and pull and resulted in a big weakness for the organization in information and technology. Those weaknesses then have the potential to further influence political, social, and legal factors, should they cause data breaches, for example.

These external factors will be different in nature and in chain of cause and effect in each situation, and they allow you to understand where the internal situation came from.

Notes

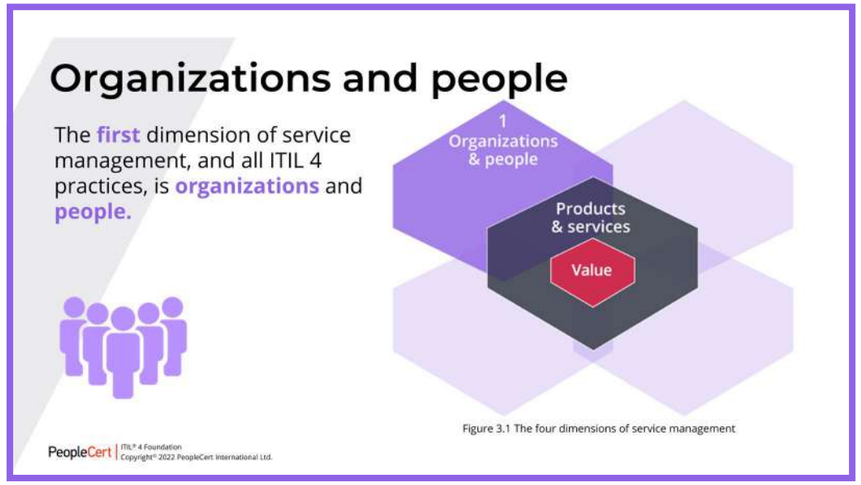
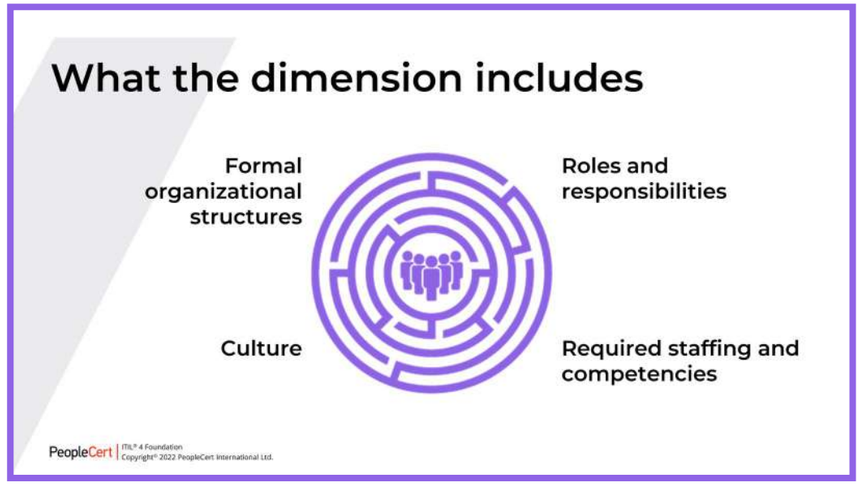


Figure 3.1 The four dimensions of service management

The effectiveness of an organization cannot be assured by a formally established structure or system of authority alone. The organization also needs a culture that supports its objectives, and the right level of capacity and competency among its workforce. It is vital that the leaders of the organization champion and advocate values, which motivate people to work in desirable ways. Ultimately, however, it is the way in which an organization performs its work that creates shared values and attitudes. These values and attitudes over time are considered the organization's culture.

Notes



The organization and people dimension needs to be understood comprehensively or systemically, therefore a number of contributing factors should be analysed:

- formal organizational structures
- culture
- roles and responsibilities
- required staffing and competencies.

Any of these factors could be beneficial or detrimental to the organizations and people dimension.

Notes



The effectiveness of an organization cannot be assured only through formally established structure or system of authority. It also requires a culture, and the right capacity and competency among its workforce, that support its objectives. Leaders of the organization must champion and advocate values that motivate people to work in desirable ways. Ultimately, the way in which an organization performs its work creates shared values and attitudes, which over time are considered the organization's culture.

Notes



Fostering a supportive culture requires:

- shared values and attitudes
- leaders that champion and advocate values
- trust and transparency
- communication.

Combining these elements can be achieved by addressing the question 'why' as early and as openly as possible.

Notes



We must pay attention to people (customers, supplier staff, provider staff, and other stakeholders in the service relationship) as they are central in this dimension. This means paying attention to the communication and collaboration capabilities and other skills and competencies of teams and individual contributors, but also to management and leadership styles that set the tone in an organization. Shared objectives are vital to ensuring value creation, and, along with shared tools, practices and information, they help an organization remove organizational silos.

Notes



The complexity of organizations is growing, and it is important to ensure that the way an organization is structured and managed, as well as its roles, responsibilities, and systems of authority and communication, is well defined and supports its overall strategy and operating model. As organizations and their relationships become more complex, there is an increasing need to ensure that they are flexible, scalable and agile.

Notes

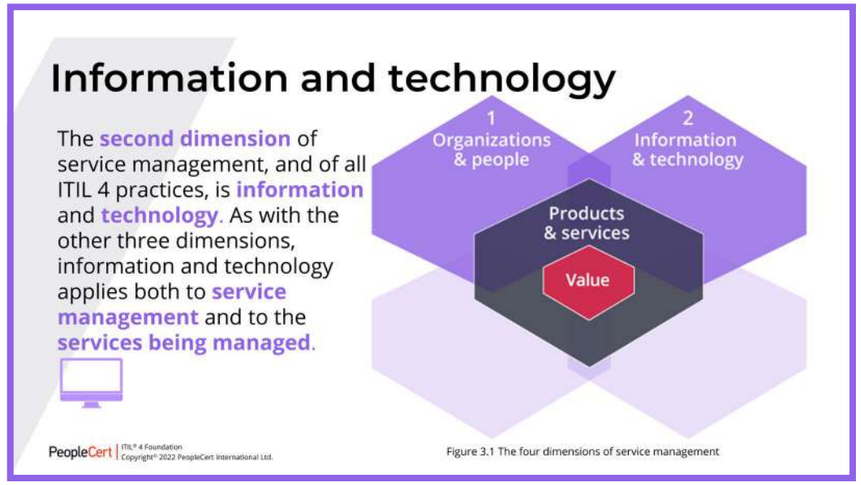
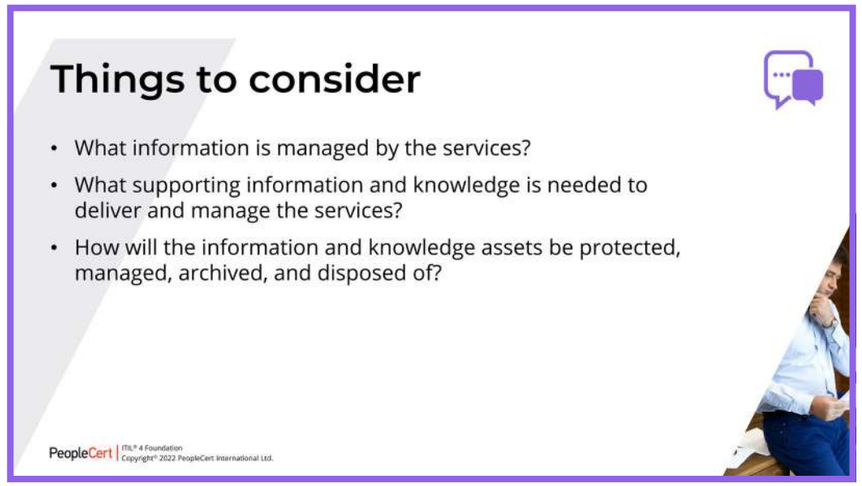


Figure 3.1 The four dimensions of service management

The second dimension of service management, and of all ITIL 4 practices, is information and technology. As with the other three dimensions, information and technology applies both to service management and to the services being managed.

When applied to the service value system, the information and technology dimension includes the information and knowledge necessary for the management of services, as well as the technologies required. It also incorporates the relationships between different components of the service value system, such as the inputs and outputs of activities and practices.

Notes



Consider the questions on the slide in relation to the information used by your own organization.



At Axle Car Hire, the information and technology dimension represents a range of information from different sources, as well as the technologies that support and enable their services.

Notes

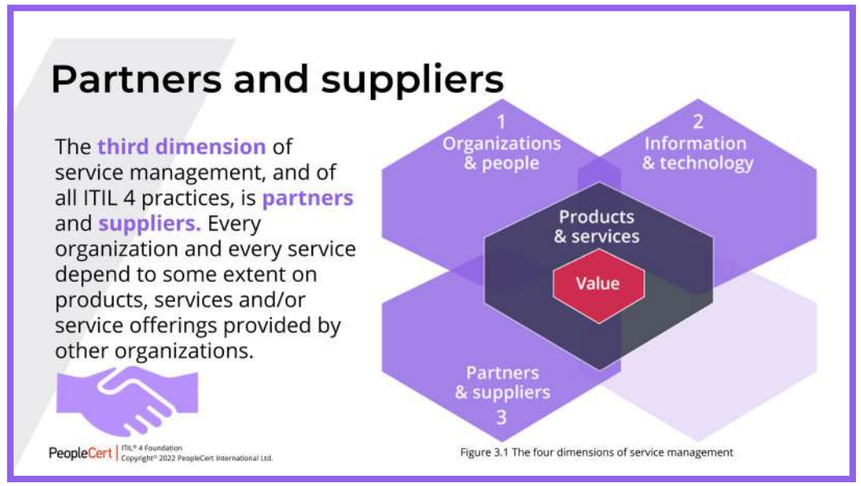


Figure 3.1 The four dimensions of service management

The third dimension of service management, and of all ITIL 4 practices, is partners and suppliers. Every organization and every service depend to some extent on products, services, and/or service offerings provided by other organizations. This dimension varies from the organizations and people dimension as it focuses on third party and external resources as opposed to those that are internal.



The partners and suppliers dimension encompasses an organization's relationships with other organizations that are involved in the design, development, deployment, delivery, support, and/or continual improvement of services. It also incorporates contracts and other agreements between the organization and its partners or suppliers.

Notes

Forms of cooperation

Form of cooperation	Outputs	Responsibility for outputs	Responsibility for outcomes	Level of formality	Examples
Goods supply	Goods supplied	Supplier	Customer	Formal supply contract/invoices	Procurement of computers and phones
Service delivery	Services delivered	Provider	Customer	Formal agreements, flexible cases	Cloud computing (infrastructure of platform as a service)
Service partnership	Value co-created	Shared between provider and customer	Shared between provider and customer	Shared goals/ general agreements, flexible case-based arrangements	Employee onboarding (shared between HR, facilities, IT)

Table 3.1: Relationships between organizations

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This table shows some examples of forms of cooperations among organizations, that they may involve a variety of levels of integration and formality, from formal contracts with clear separation of duties to flexible partnerships where parties share common goals and risks and collaborate to achieve desired outcomes. Forms of cooperation are not fixed and distinct, but exist on a scale. An organization acting as a provider will have a position on this scale, and that position will vary depending on their strategy and objectives for customer relationships. Likewise, when an organization takes on the consumer role, the nature of that role will depend on its strategy and objectives for sourcing and supplier management.

Notes

What goes into supplier strategy?



Cost concerns
Resource scarcity
Subject matter expertise
Corporate culture
Organization's supplier strategy
External constraints
Strategic focus
Demand patterns

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An organization should base its strategy for using partners and suppliers on its goals, culture, and business environment.

Factors that may influence an organization's supplier strategy are:

- how to focus on core competencies
- what cultural bias and preferences exist
- what resources are in short supply
- costs
- expertise
- external constraints like government regulation or policy
- industry codes of conduct
- social, political or legal constraints
- demand patterns, which may be seasonal or demonstrate high degrees of variability, impacting the extent to which external providers are utilized.

Notes



The definition of a value stream is a series of steps that an organization undertakes to create and deliver products and services to consumers. Identifying and understanding the various value streams that an organization has, is critical to improving its overall performance. Structuring the organization's activities in the form of value streams allows it to have a clear picture of what it delivers and how to make continual improvements to its services.

Notes

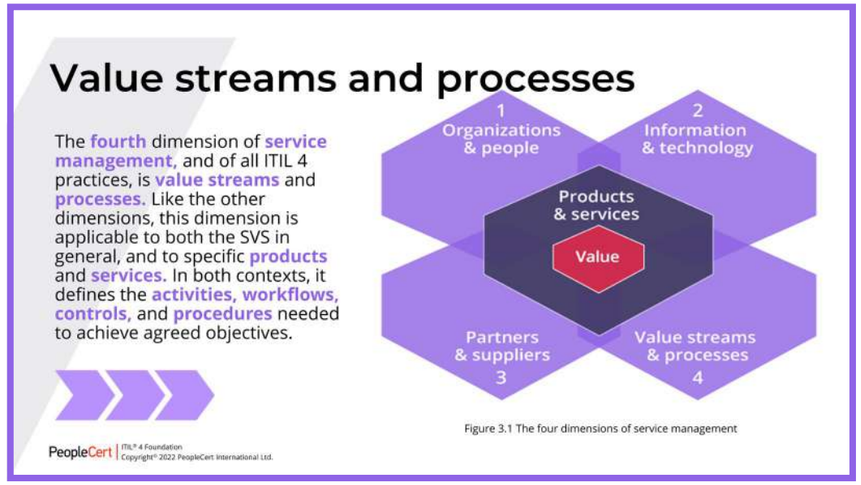


Figure 3.1 The four dimensions of service management

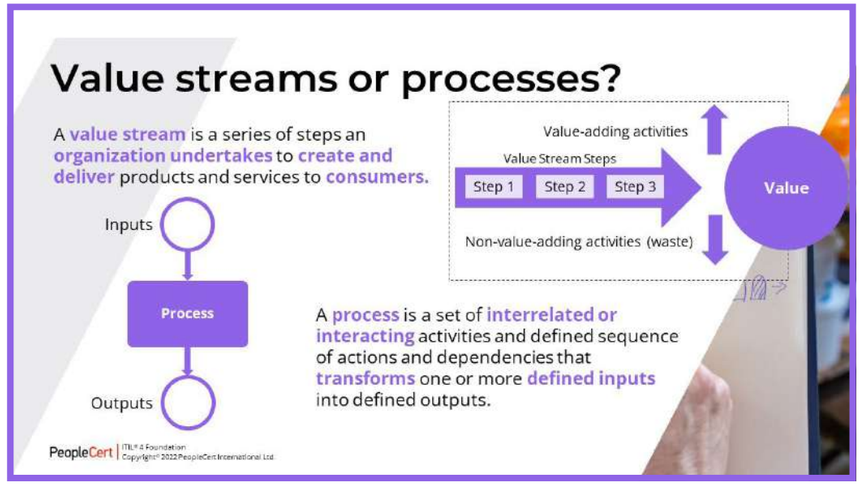
The fourth dimension of service management, and of all ITIL 4 practices, is value streams and processes. Like the other dimensions, this dimension is applicable to both the SVS in general, and to specific products and services. In both contexts, it defines the activities, workflows, controls, and procedures needed to achieve agreed objectives.

An example of a one dimensional approach to service management is an organization that focuses only on processes. They create a process for every situation, but they neglect to consider who would be delivering those processes. Without that focus on organizations and people, compliance to the processes and sensible decision-making when problems arise can cause service management to come off the rails.

People need to be properly engaged with the reasons for the processes, and the ultimate outcomes they serve, because processes are not autonomous, nor can they predict every situation. They have to be executed by humans, and when inevitable exceptions occur, those humans need to make good, informed decisions to get the right outcomes. ITIL provides organizations, acting as service providers, an operating model that covers all the key activities required to manage products and services effectively. This is referred to as the ITIL service value chain. The service value chain operating model is generic and in practice can follow different patterns. These patterns within the value chain operation are called value streams.

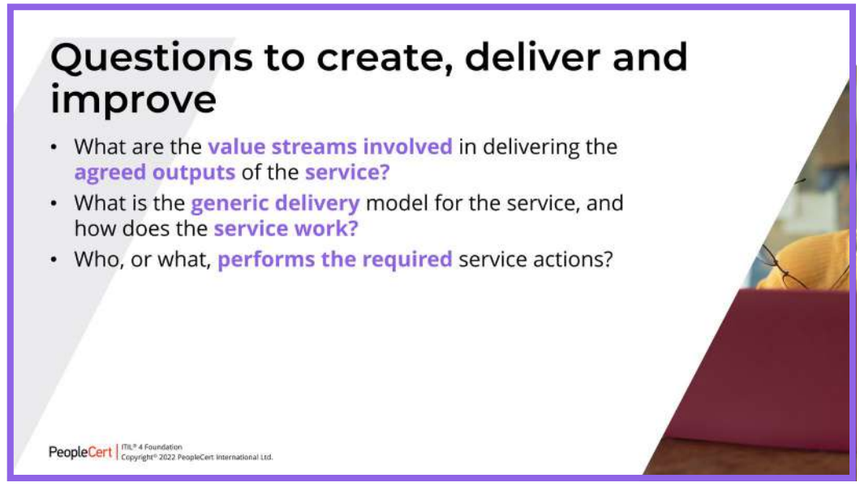
We can understand ITIL 4 in relation to the universe. The entire universe is too hard to discuss; it is ever expanding, so whatever we say is out of date by the time we have finished saying it. It can, however, be broken down into galaxies, solar systems, planets, continents, nations, states, counties, towns. These levels of granularity make the universe understandable. The universal level of ITIL 4 is the SVS. Zoom in to a galaxy, the SVC, and closer still, to value streams, and those value streams are made up of practices. They can be considered as a bucket of blocks, which can be combined to make structures, architectures, or in ITIL 4 language, value streams. Contained within the practices are all four dimensions, including processes. These are made up of standard operating procedures. From this, zoom back out to the SVS.

Notes



Although a value stream and a process might be used to map the same activity, value streams put the value sought directly on the diagram as an outcome, and then map how that value is created, including currently performed work that is non-value added waste that can be eliminated to increase value and flow or time-to-value. Process mapping maps inputs, outputs, and sequences of steps. The emphasis is on understanding what is done as a basis for both training staff to perform it well, and for streamlining those steps. Value stream optimization may include process automation or emerging technology and practices adoption to gain efficiencies or enhance user experience.

Notes

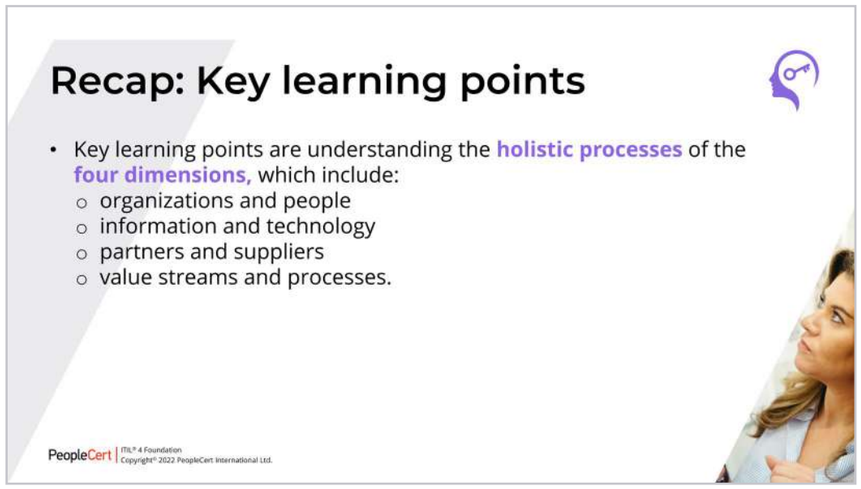


Here are some questions to ask when seeking to successfully create, deliver, and improve a service. Answers to such questions will vary based on the nature and architecture of a service. Think of a service you are involved in. Can you answer these questions for that service? Note the last point, 'who or what', services can be entirely manual in nature, or fully automated, or something in between.

Notes



At Axle Car Hire, all four dimensions contribute to the successful running of the organization's services.



This slide outlines the key learning points that were covered in this topic.

Notes

Activity – PESTLE analysis

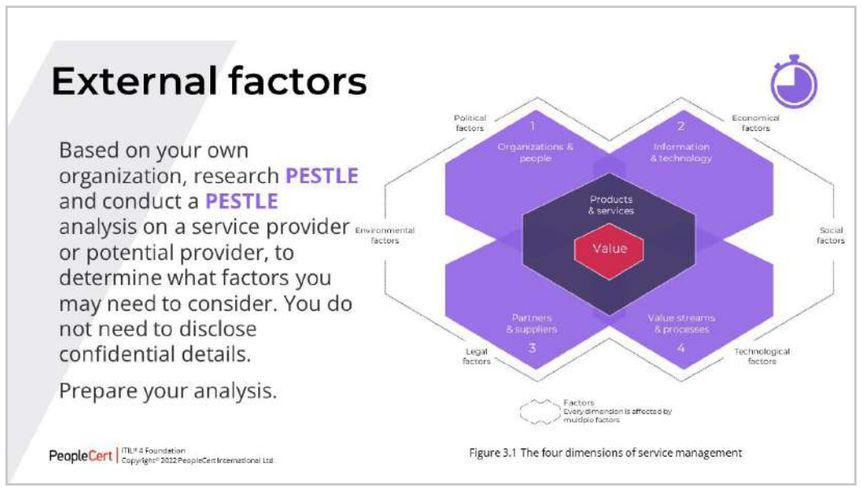
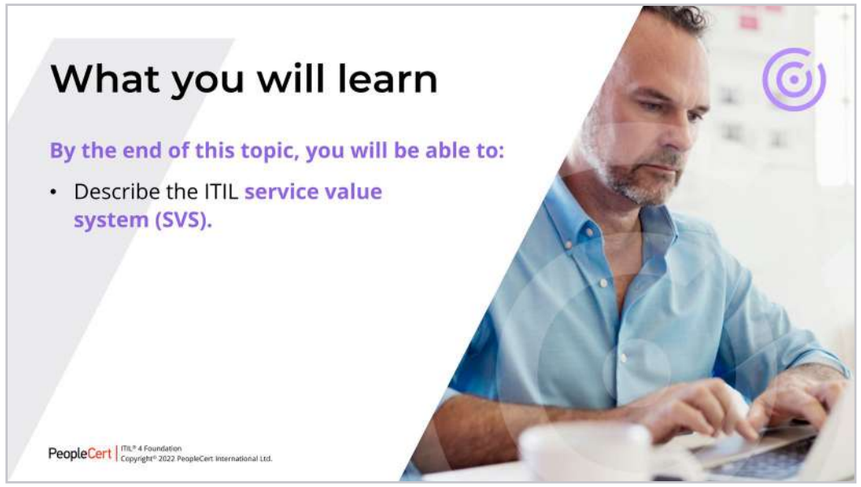


Figure 3.1 The four dimensions of service management

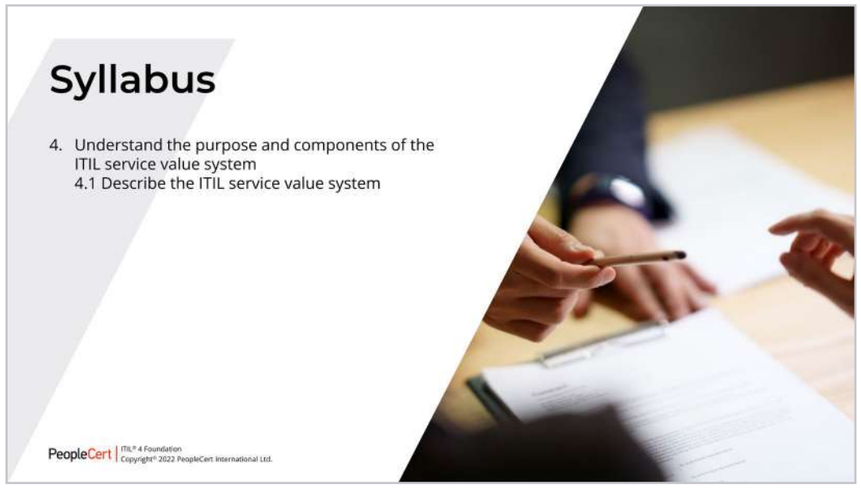


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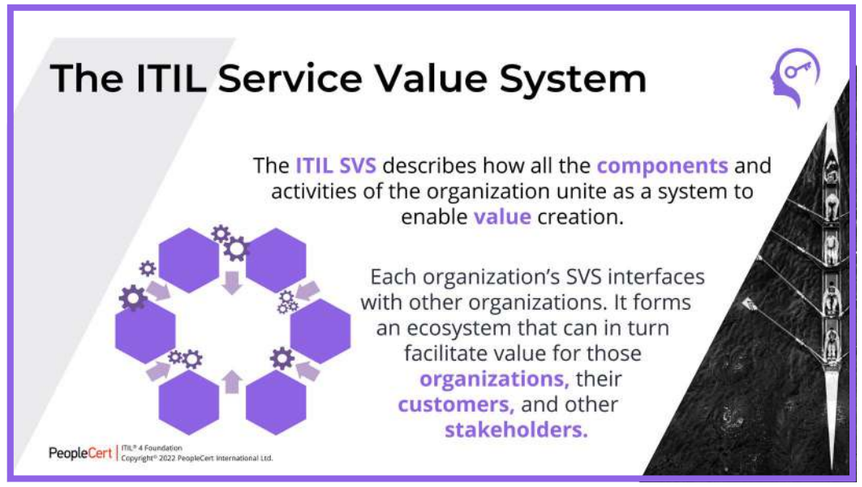
3.2 ITIL service value system



This slide outlines the key learning points that will be covered in this topic.



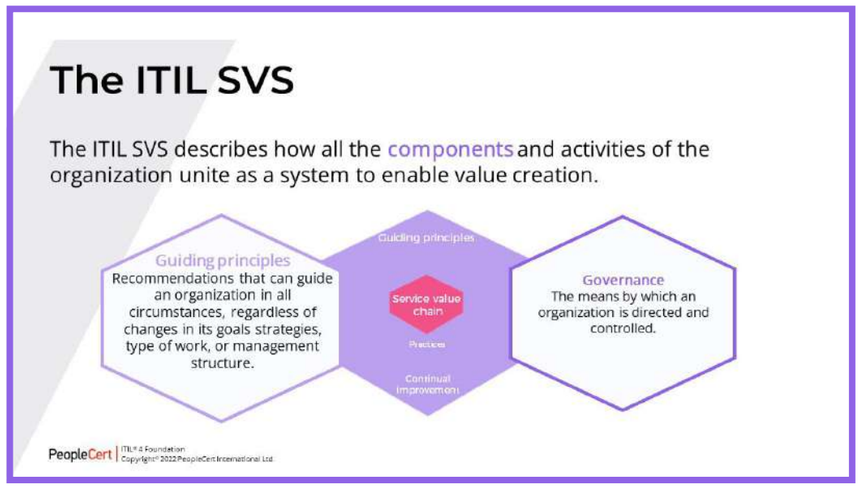
Notes



Although service value system (SVS) is an ITIL term, learners may recognize all the components that comprise the SVS as something else within their own organization. For example, operating model, management system, and so on. The ITIL SVS describes how all the components and activities of the organization unite as a system to enable value creation. Each organization's SVS interfaces with other organizations. It forms an ecosystem that can facilitate value for those organizations, their customers, and other stakeholders.

The SVS encourages a comprehensive understanding and application of elements that have historically been considered and managed as individual silos. Ultimately, service provision and co-created value are optimized when the influential and supporting elements are proactively integrated.

Notes



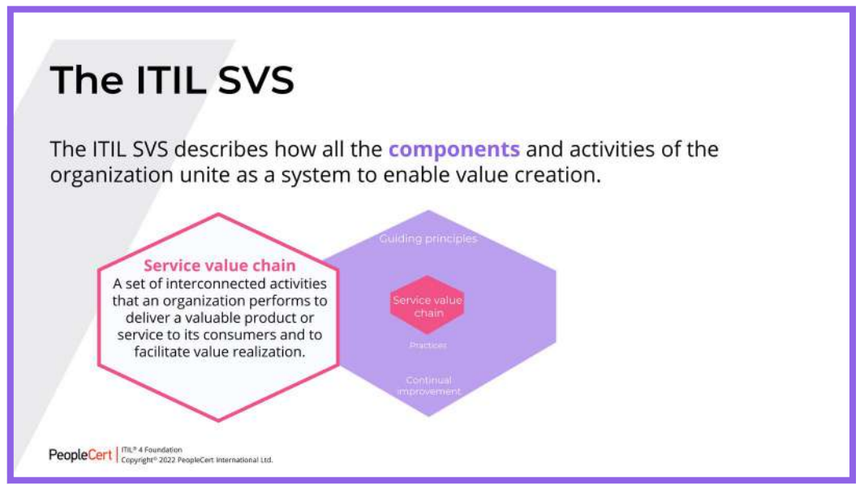
The purpose of the SVS is to ensure that the organization continually co-creates value with all stakeholders, through the use and management of products and services. The structure of the SVS is shown in the adaptation of Figure 4.1 from the Official Book.

The elements of the SVS are outlined in the following slides.

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.

Governance is the means by which an organization is directed and controlled. This will be covered in more detail on a subsequent slide.

Notes

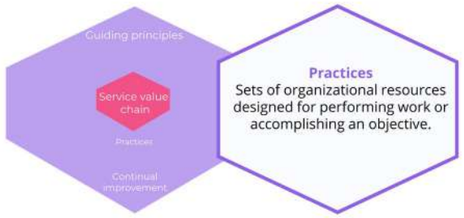


The service value chain is a set of interconnected activities that an organization performs to deliver a valuable product or service to its consumers and to facilitate value realization. The dotted line that you see running from left to right, runs through the SVC, and we cannot see what happens to it in there. It might be complex or very simple, but what we know for certain is that the guiding principles, governance, practices, and continual improvement influence that path within the service value chain, that is their purpose. We will explore what happens in the SVC in a later section.

Notes

The ITIL SVS

The ITIL SVS describes how all the **components** and activities of the organization unite as a system to enable value creation.

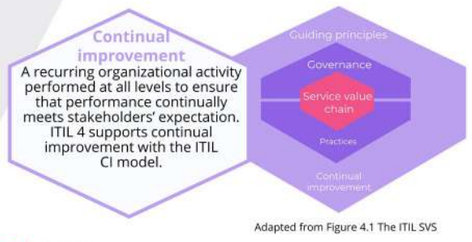


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Practices are sets of organizational resources designed for performing work or accomplishing an objective.

The ITIL SVS

The ITIL SVS describes how all the **components** and activities of the organization unite as a system to enable value creation.



Adapted from Figure 4.1 The ITIL SVS

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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.

Notes

ITIL SVS inputs



The key **inputs** to the SVS are **opportunity** and **demand.**

The **outcome** of the SVS is **value.** It is the perceived benefits, usefulness, and importance of something.

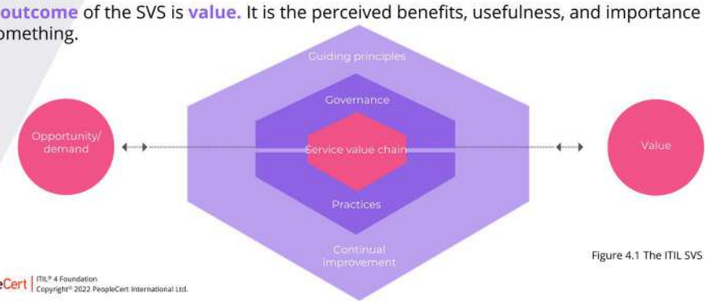


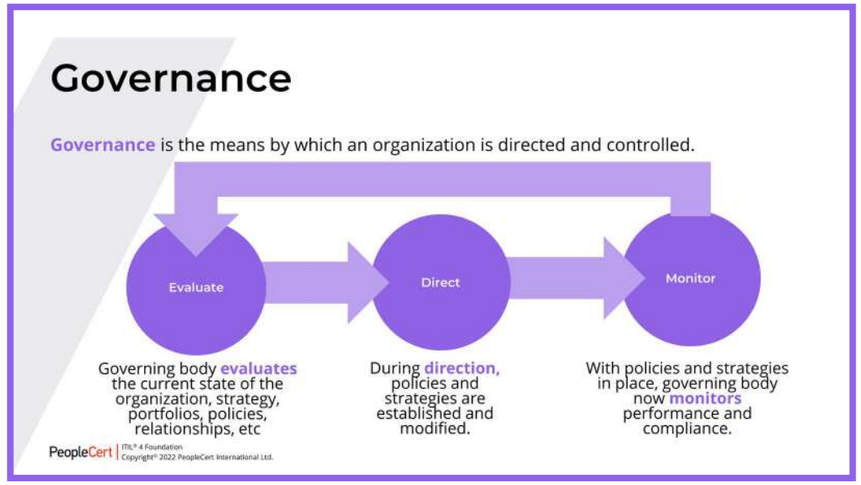
Figure 4.1 The ITIL SVS

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The key inputs to the SVS are **opportunity** and **demand**. Opportunities represent options or possibilities to add value for stakeholders or otherwise improve the organization. Demand is the need or desire for products and services among internal and external consumers.

The outcome of the SVS is value. It is the perceived benefits, usefulness, and importance of something. The ITIL SVS can enable the creation of many different types of value for a wide group of stakeholders.

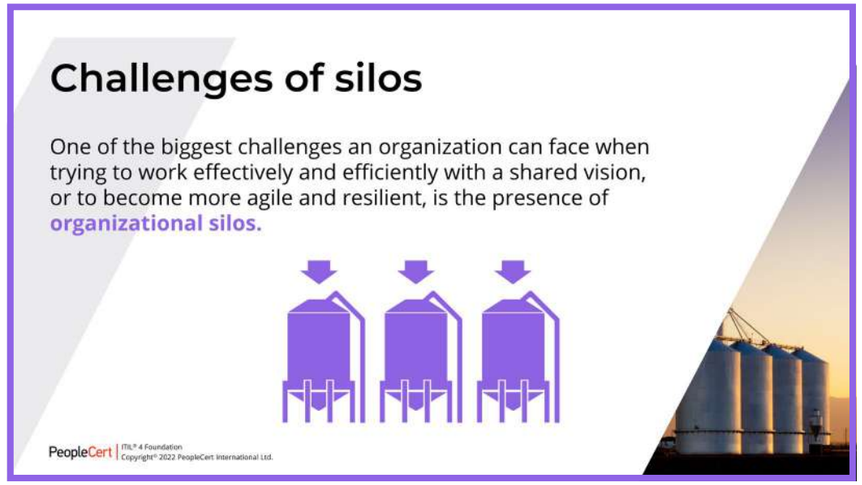
Notes



Governance is the means by which an organization is directed and controlled. Under the control of a governing body, usually a board of directors or executive team, compliance to the rules and regulations under which the organization operates is ensured. The governing body is ultimately accountable for compliance and realizes governance through evaluate, direct, monitor (EDM).

The governing body evaluates the organization's current strategies, portfolios, policies, and relationships. The output from evaluation becomes the input to direct. During the direction, the preparation and implementation of strategy and policies (and assigns responsibility for them) is undertaken. With those policies in place, the governing body monitors the performance of the organization and its practices, products, and services to ensure compliance with the strategy and policies. EDM is a cyclical, ongoing process and the output from monitoring becomes the input for the next evaluation.

Notes



One of the biggest challenges an organization can face when trying to work effectively and efficiently with a shared vision, or to become more agile and resilient, is the presence of organizational silos. Organizational silos can form in many ways and for many different reasons. Silos can be resistant to change and can prevent easy access to the information and specialized expertise that exists across the organization. This can, in turn, reduce efficiency and increase both cost and risk. Silos also make it more difficult for communication or collaboration to occur across different groups.

A siloed organization cannot act quickly enough to take advantage of opportunities or to optimize the use of resources across the organization. It is often unable to make effective decisions about changes, due to limited visibility and many hidden agendas. Practices can also become silos. Many organizations have implemented practices, such as organizational change management or incident management, without clear interfaces with other practices.

All practices should have multiple interfaces with one another. The exchange of information between practices should be triggered at key points in the workflow and is essential to the proper functioning of the organization.

Notes



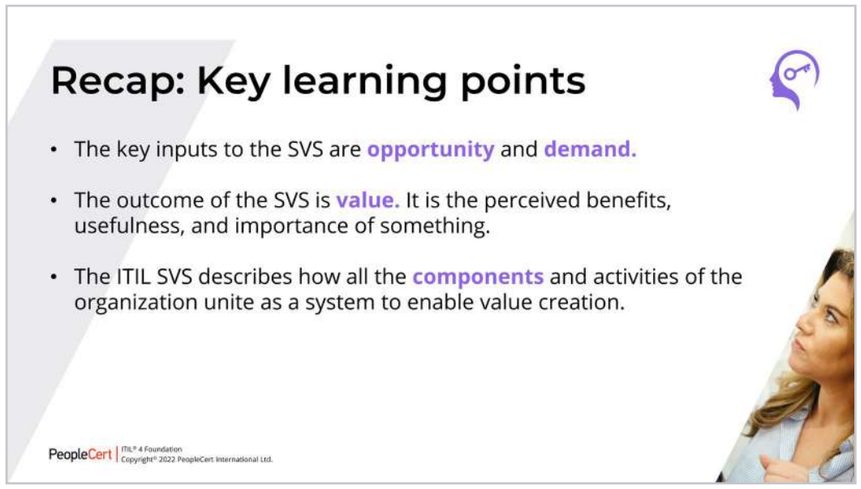
The architecture of the ITIL SVS specifically enables flexibility and discourages siloed working. The service value chain activities and the practices in the SVS do not form a fixed and rigid structure. Rather, they can be combined in multiple value streams to address the needs of the organization in a variety of scenarios. Organizations should be able to define and redefine their value streams in a flexible yet safe and efficient manner. This requires the continual improvement activity to be performed at all levels of the organization; the ITIL continual improvement model helps to structure this activity.

Finally, the continual improvement and overall operation of an organization are shaped by the ITIL guiding principles. The guiding principles create a foundation for a shared culture across the organization, which supports collaboration and cooperation within and between the teams. This removes the need for constraints and controls previously provided by silos.

Notes



Consider the questions on the slide and how these would apply to your organization.

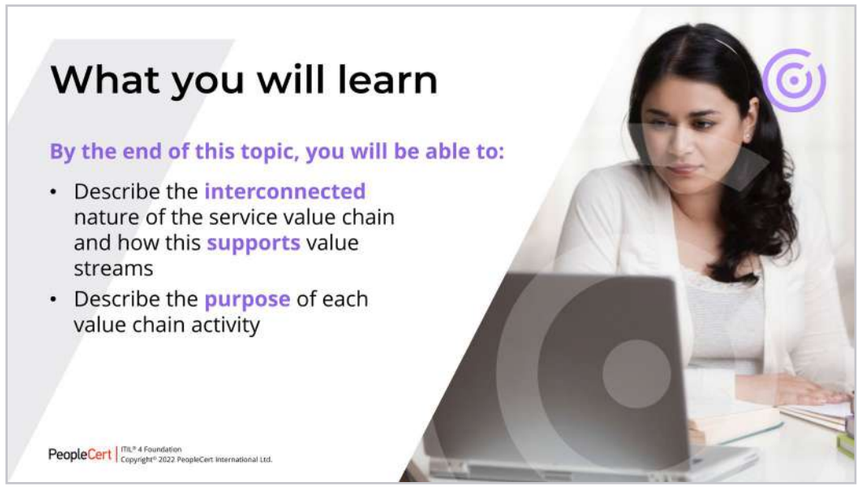


This slide outlines the key learning points that were covered in this topic.

Notes

3.3 Service value chain





This slide outlines the key learning points that will be covered in this topic.

Notes

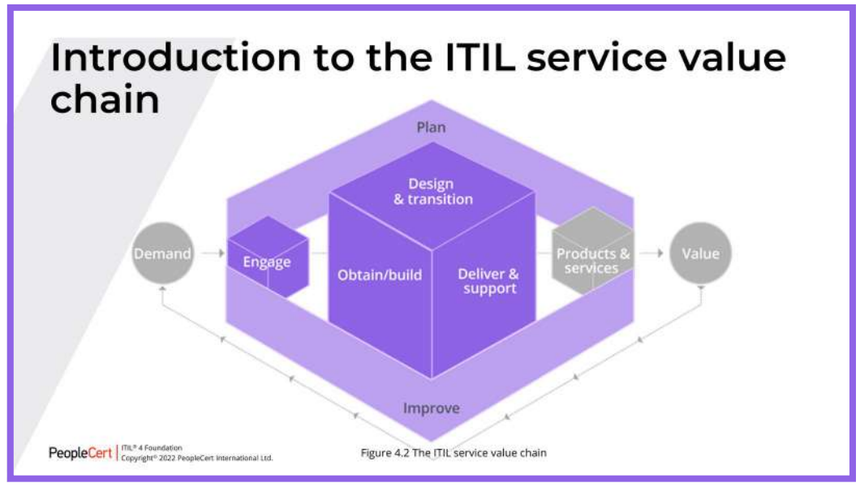


Figure 4.2 The ITIL service value chain

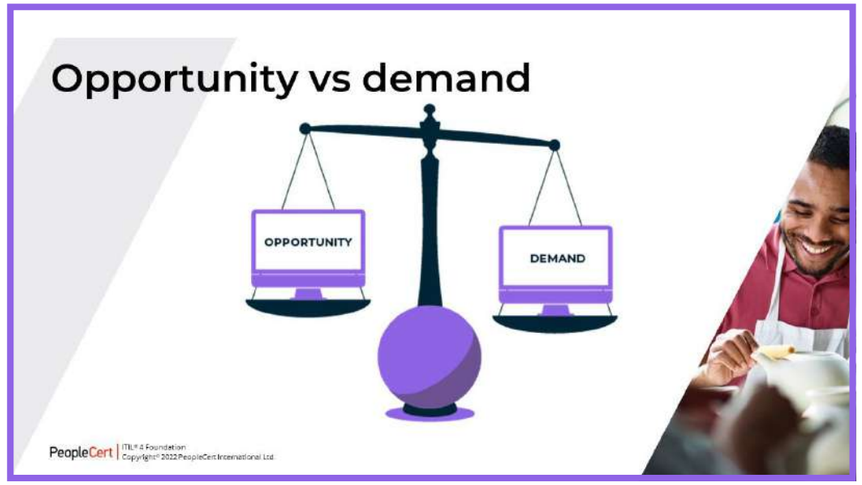
The ITIL service value chain includes six value chain activities that lead to the creation of products, services, and value. These are:

- plan
- improve
- engage
- design and transition
- obtain/build
- deliver and support.

These activities represent each of the steps an organization takes in the creation of value. Each activity transforms inputs into outputs. These inputs can be demand, from outside of the value chain, or outputs of other activities. All the activities are interconnected, with each activity receiving and providing triggers for further action.

Notes

Module 3
Key concepts of ITIL 4



In the SVS diagram, both demand and opportunity act as triggers.

Demand is something the customer specifically requests based upon a need or desire, which requires the service provider to react. However, a service provider can also proactively identify options before a demand is stated. These opportunities could be possibilities to add value for stakeholders in the form of improvements or new services. Upon consideration, customers may choose to reject a proposal or accept it, which converts the opportunity into a demand and triggers work within the system. Identifying and voicing an opportunity to provide a service before a customer demand exists is a frequent behavior of a service provider positioning itself as a strategic partner to the organization.

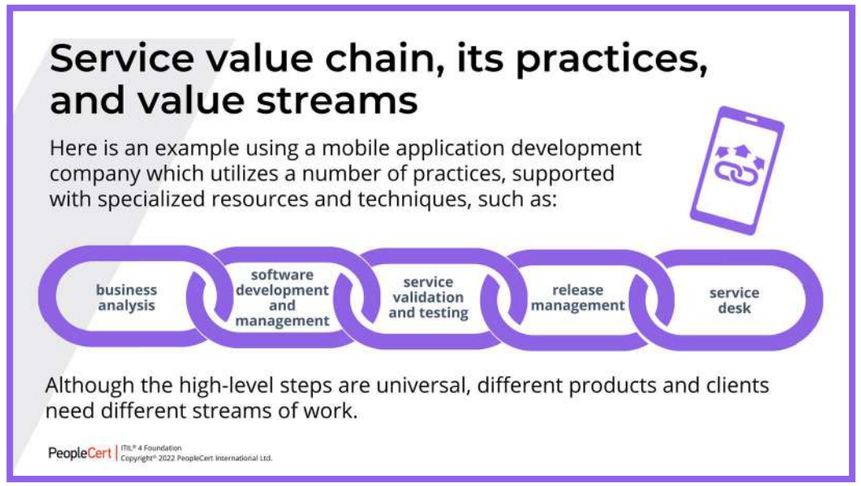
At the SVS level, we can explore opportunities which might or might not create demand. We only move to the SVC level when we have successfully created or received a demand, and therefore on this diagram, we see only 'demand', not 'opportunity'.

Notes



The value chain activities convert inputs into outputs using different combinations of ITIL practices (sets of resources for performing certain types of work), drawing on internal or third-party resources, processes, skills, and competencies as required. The engage activity might utilize supplier management, service desk management, relationship management, and service request management to respond to new demands for products and services, or information from various stakeholders.

Notes



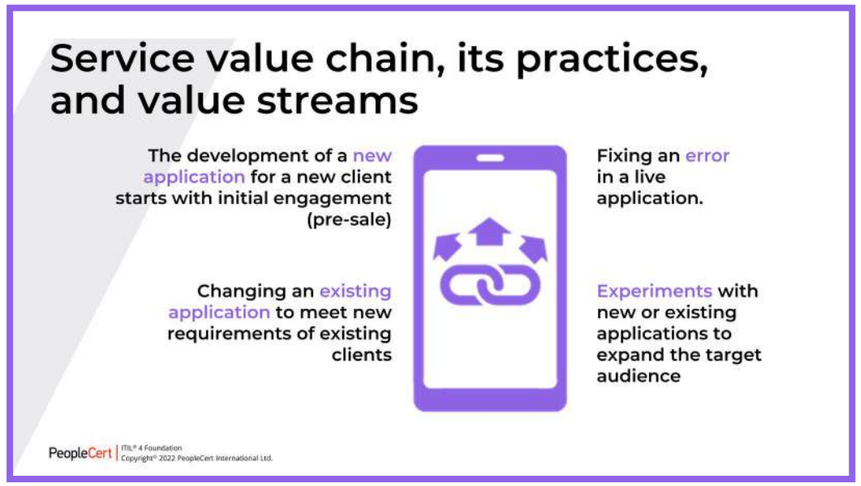
The example on this slide explores a mobile application development company. Their value chain describes the full cycle of application development and management, from business analysis to development, release, and support.

The company utilizes a number of practices, supported with specialized resources and techniques:

- business analysis
- software development and management
- service validation and testing
- release management
- service desk.

Although the high-level steps are universal, different service offerings, services, products, and clients need different streams of work.

Notes



Here are four examples of value streams:

- The development of an application for a new client starts with initial engagement (pre-sale), then proceeds to business analysis, prototyping, the preparation of agreements, development, testing, and eventually release and support.
- Changing an existing application to meet the new requirements of existing clients does not include pre-sale and involves business analysis, development, testing, and support in a different way.
- Fixing an error in a live application may be initiated in support, proceed with rolling back to a previous stable version (release), then move to development, testing, and release of a fix.
- Experiments with new or existing applications to expand the target audience may start with innovation planning and prototyping, then proceed to development, and eventually to a pilot release for a limited group of users to test their perception of the changes made.

These example value streams may combine any number of practices and value chain activities in various ways to improve products and services and increase potential value for the consumers and the organization. Value streams are designed and documented based on specific situations. There is no requirement that a value stream must include all six activities. Some situations can be addressed in a more straightforward manner. Also, any SVC activity can be used several times as required by the situation, depending on how involved or complex it is. It is also possible that a provider may need to engage with consumers multiple times in a single value stream.

The following slides outline Axle's value chain and value streams.

Notes

Module 3
Key concepts of ITIL 4



At Axle Car Hire, the value chain is the way that the company operates. It has multiple value streams. Each value stream adopts and adapts the activities of the value chain for performing particular tasks. The following slides outline Axle's value chain and value streams.



Notes

Module 3
Key concepts of ITIL 4



Notes



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

Key inputs to this value chain activity include performance information and improvement opportunities. Other inputs will originate from the other value chain activities.

Key outputs for this value chain activity include strategic, tactical, and operational plans for all value chain activities.

Notes



The purpose of the improve value chain activity is to ensure continual improvement of products, services, and practices across all value chain activities and the four dimensions of service management.

Key inputs to this value chain activity include performance information and improvement opportunities. Other inputs will originate from the other value chain activities.

Key outputs for this value chain activity include improvement initiatives for all value chain activities.

Notes



The purpose of the engage value chain activity is to provide a good understanding of stakeholder needs, transparency, and continual engagement and good relationships with all stakeholders.

Key inputs to this value chain activity include:

- detailed requirements for services and products provided by customers
- requests and feedback from customers
- incidents, service requests, and feedback from users.

Other inputs will originate from the other value chain activities.

The outputs of the engage activity often act as triggers for other value chain activities.

Notes



The purpose of the design and transition value chain activity is to ensure that products and services continually meet stakeholder expectations for quality, costs, and time to market.

Key inputs to this value chain activity include:

- product and service requirements
- improvement initiatives.

Other inputs will originate from the other value chain activities.

Key outputs for this value chain activity include:

- new and changed products and services
- knowledge and information about new and changed products and services.

Notes



The purpose of the obtain/build value chain activity is to ensure that service components are available when and where they are needed, and meet agreed specifications.

This is more than just a choice between buying or building, but rather the breaking down of the question 'should we build it?' into questions like 'how important are these features to the outcome that we are looking for?' If they are critical, then maybe we need to build it. However, if we are 18 months behind on development, then no matter how beneficial it is, we will probably be at a disadvantage by adding another task to the list, when we could buy an off-the-shelf solution that will do 80% of what we need almost immediately.

Key inputs to this value chain activity include:

- requirements and specifications
- contracts and agreements.

Other inputs will originate from the other value chain activities.

Key outputs for this value chain activity include:

- service components
- knowledge and information about new and changed service components.

Notes



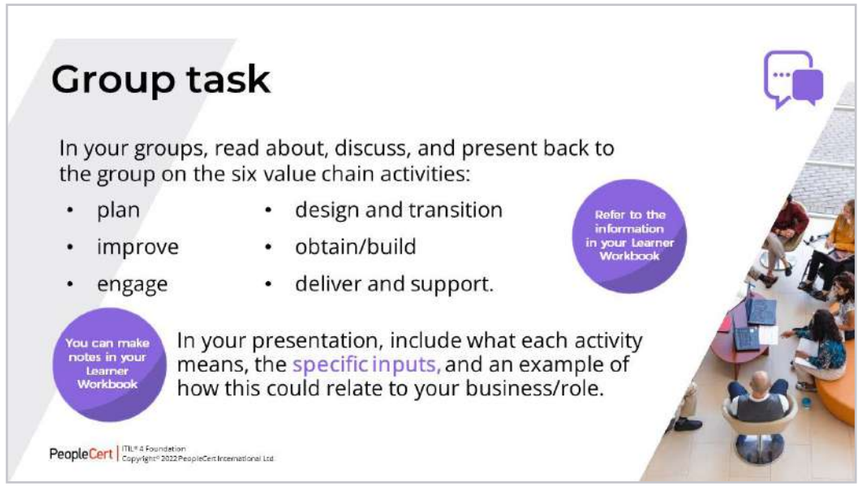
The purpose of the deliver and support value chain activity is to ensure that services are delivered and supported according to agreed specifications and stakeholders' expectations.

Key inputs to this value chain activity include user support tasks. Other inputs will originate from the other value chain activities.

Key outputs for this value chain activity include:

- services delivered to customers and users
- the completion of user support tasks.

Notes



In your groups, read about this in your Learner Workbook, discuss, and present back to the group on the six value chain activities:

- plan
- improve
- engage
- design and transition
- obtain/build
- deliver and support.

In your presentation, include what each activity means, the specific inputs, and an example of how this could relate to your business/role.

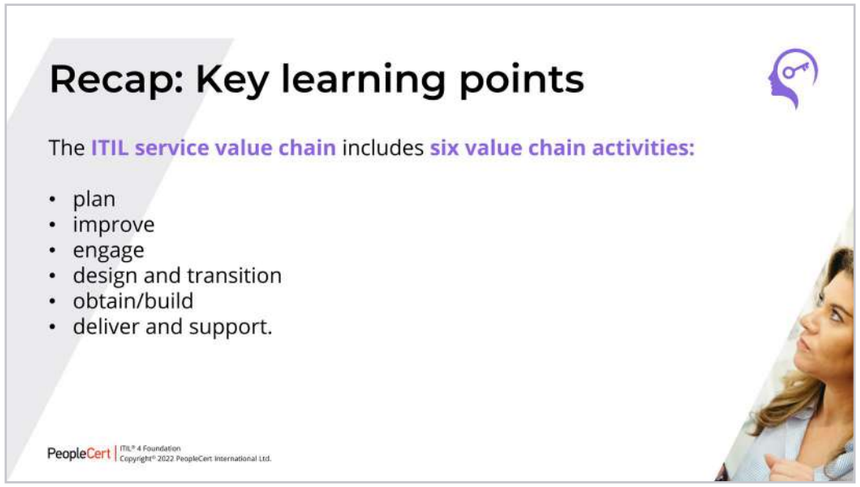
You can present your work in either Microsoft Word, PowerPoint, or flipchart format (depending on the delivery method). You must be prepared to speak to the rest of the group regarding your findings and how they could relate to your business/role.

You have 10 minutes to research and prepare materials.

Each presentation will last for five minutes per value chain activity. Good luck.

Notes





This slide outlines the key learning points that were covered in this topic.

Notes

Activity – High-level value chain

Task

30 minutes

Draw a high-level value stream showing how value is arrived at from the initial opportunity or demand.

You can make notes in your Learner Workbook

Try to apply the activities within the stream to situations in your own context.

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Notes

Quiz

Questions:

1. Which dimension of service management considers governance, management, and communication?
   A. Organizations and people
   B. Information and technology
   C. Partners and suppliers
   D. Value streams and processes

2. The purpose of the _____ is to ensure that the organization continually co-creates value with all stakeholders in line with the organization's objectives.
   A. 'focus of value' guiding principles
   B. four dimensions of service management
   C. service value system
   D. 'service request management' practice

3. What considerations influence the supplier strategy of an organization?
   A. contracts and agreements
   B. type of cooperation with suppliers
   C. corporate culture of the organization
   D. level of formality

4. Which value chain activity communicates the current status of all four dimensions of service management?
   A. improve
   B. engage
   C. obtain/build
   D. plan

5. How do all value chain activities transform inputs to outputs?
   A. by determining service demand
   B. by using a combination of practices
   C. by using a single functional team
   D. by implementing process automation

Answers:

1. Which dimension of service management considers governance, management, and communication?
   A. Organizations and people
   B. Information and technology
   C. Partners and suppliers
   D. Value streams and processes

   Correct. 'It is important to ensure that the way an organization is structured and managed, as well as its roles, responsibilities, and systems of authority and communication, is well defined and supports its overall strategy and operating model.' Ref 3.1

2. The purpose of the _____ is to ensure that the organization continually co-creates value with all stakeholders in line with the organization's objectives.
   A. 'focus of value' guiding principles
   B. four dimensions of service management
   C. service value system
   D. 'service request management' practice

   Correct. 'The purpose of the SVS is to ensure that the organization continually co-creates value with all stakeholders through the use and management of products and services.' Ref 4.1

3. What considerations influence the supplier strategy of an organization?
   A. contracts and agreements
   B. type of cooperation with suppliers
   C. corporate culture of the organization
   D. level of formality

   Correct. 'Corporate culture: some organizations have a historical preference for one approach over another. Long-standing cultural bias is difficult to change without compelling reasons.' Ref 3.3

4. Which value chain activity communicates the current status of all four dimensions of service management?
   A. improve
   B. engage
   C. obtain/build
   D. plan

   Correct. 'The purpose of the plan value chain activity is to ensure a shared understanding of the vision, current status, and improvement direction for all four dimensions and all products and services across the organization.' Ref 4.5.1

5. How do all value chain activities transform inputs to outputs?
   A. by determining service demand
   B. by using a combination of practices
   C. by using a single functional team
   D. by implementing process automation

   Correct. 'To convert inputs into outputs, the value chain activities use different combinations of ITIL practices.' Ref 4.5

Module 4
The guiding principles

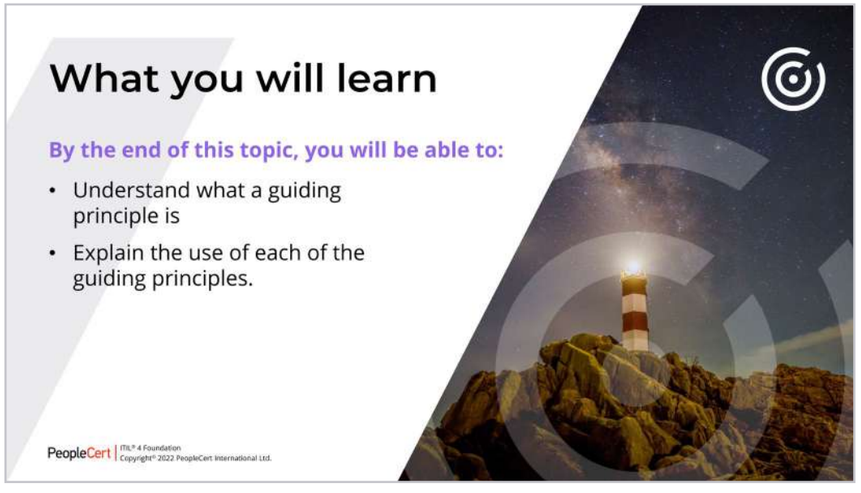
4.1 Introduction to the guiding principles

4.2 Using the guiding principles

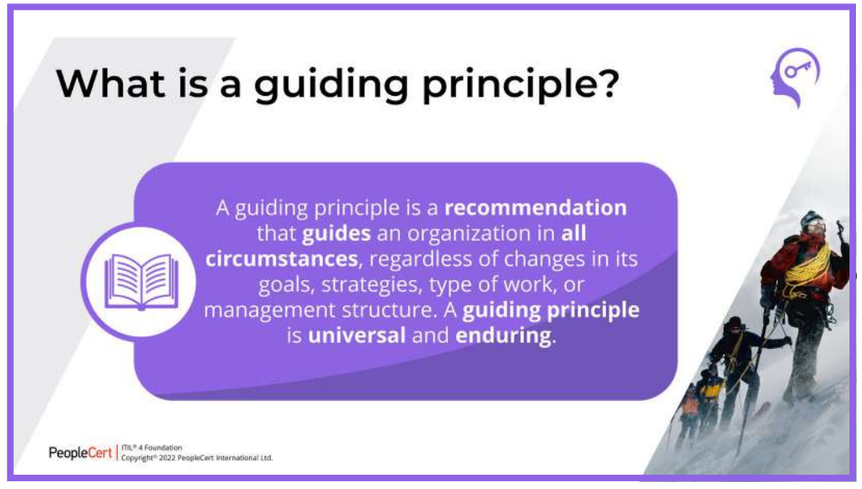


4.1 Introduction to the guiding principles





This slide outlines the key learning points that will be covered in this topic.

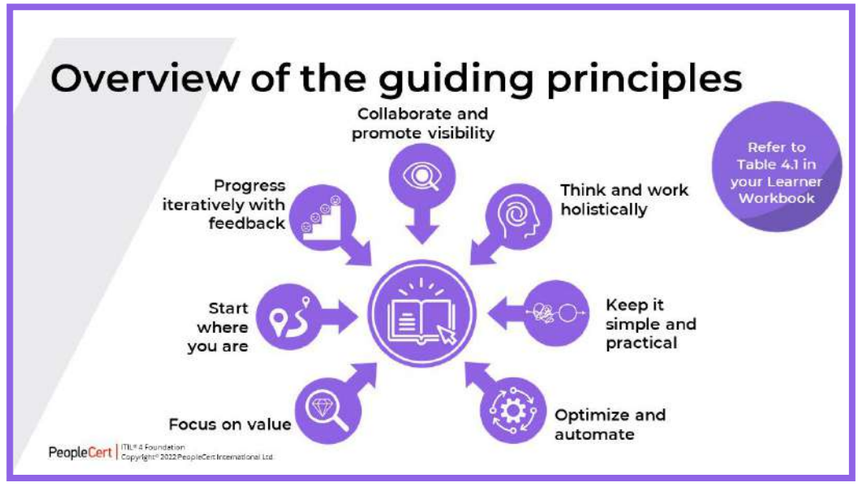


A guiding principle is a recommendation that guides an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure. A guiding principle is universal and enduring.

The guiding principles are applicable to practically any initiative, all decision making, and to all relationships with stakeholder groups.

Notes

Notes



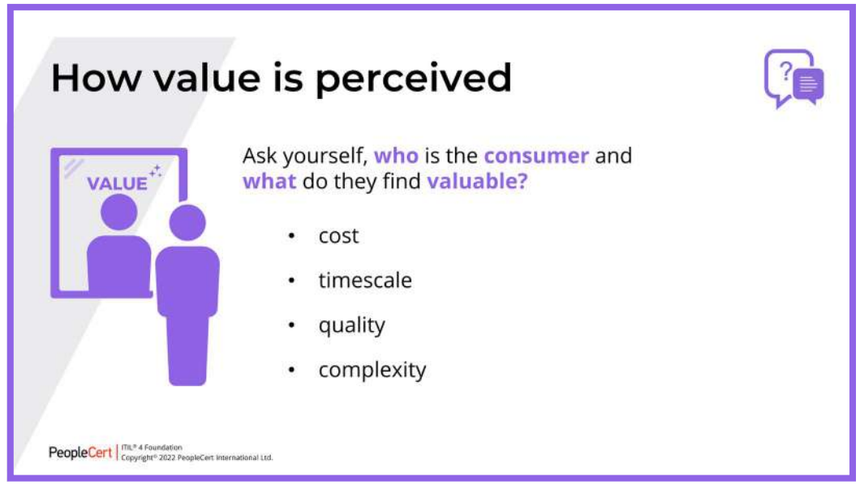
Look at Table 4.1 in the Learner Workbook.

The guiding principles defined here embody the core messages of ITIL and of service management in general, supporting successful actions, and good decisions of all types and at all levels. They can be used to guide organizations in their work, as they adopt a service management approach and adapt ITIL guidance to their own specific needs and circumstances. The guiding principles encourage and support organizations in continual improvement at all levels. Your organization may not refer to these as guiding principles. More detail on these guiding principles can be found in the Learner Workbook.

Notes

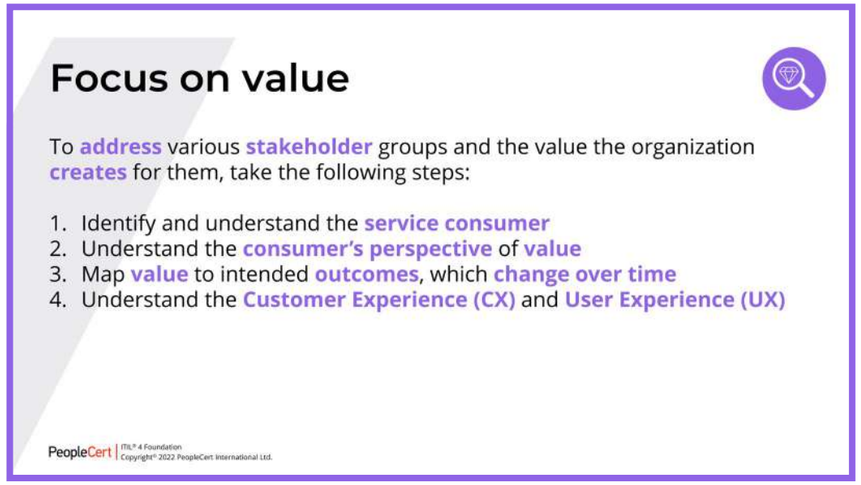


All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders. A service also contributes to value for the organization and other stakeholders. This value may come in various forms, such as revenue, customer loyalty, lower cost, or growth opportunities. The following recommendations can be adapted to address various stakeholder groups and the value that is created for them by the organization.



Consider a consumer of a service. What would they find valuable about that service?

Notes



To address stakeholder groups and the value that is created for them by the organization, you can take the four steps shown here. Consider the following questions when doing this:

- Who is the consumer?
- What is their perspective of value?
- How do intended outcomes map to that value?
- How do the customer and user experiences add to that value?

Notes



Customer experience (CX) can be defined as the entirety of the interactions a customer has with an organization and its products. This experience can determine how the customer feels about the organization and its products and services. Therefore, CX is both objective and subjective.

User experience (UX) focuses on how people interact with a service and the experience they receive from that interaction. It can be described quantitatively or qualitatively.

Notes



To apply the focus on value principle successfully, consider the following key points:

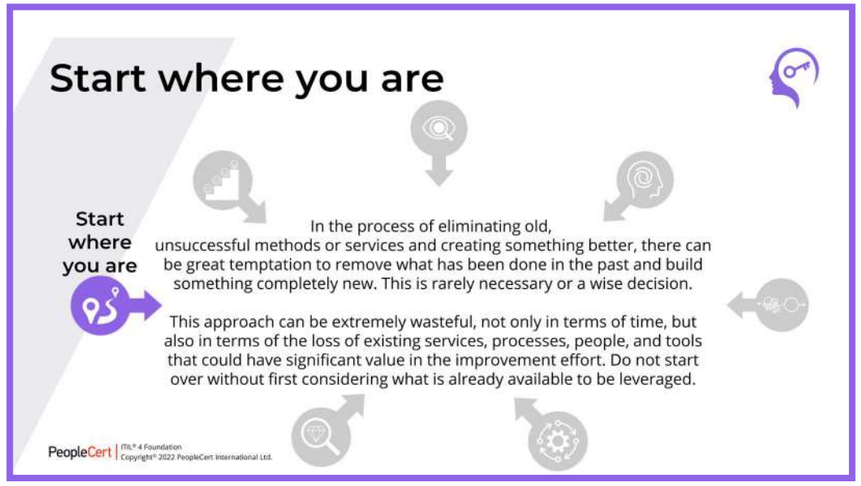
- **Know how service consumers use each service** Understand their expected outcomes, how each service contributes to these, and how the service consumers perceive the service provider. Collect feedback on value on an ongoing basis, not just at the beginning of the service relationship.
- **Encourage a focus on value among all staff** Teach staff to be aware of who their customers are and to understand CX.
- **Focus on value during normal operational activity as well as during improvement initiatives** The organization as a whole contributes to the value that the customer perceives, and so everybody within the organization must maximize the value they create. The creation of value should not be left only to the people working on the exciting projects and new things.
- **Include focus on value in every step of any improvement initiative** Everybody involved in an improvement initiative needs to understand what outcomes the initiative is trying to facilitate, how its value will be measured, and how they should be contributing to the co-creation of that value.

Notes



The Axle Car Hire team is considering introducing several pieces of new technology to their cars. When doing this, it is important for them to consider how this new technology creates value both for Axle and its customers.

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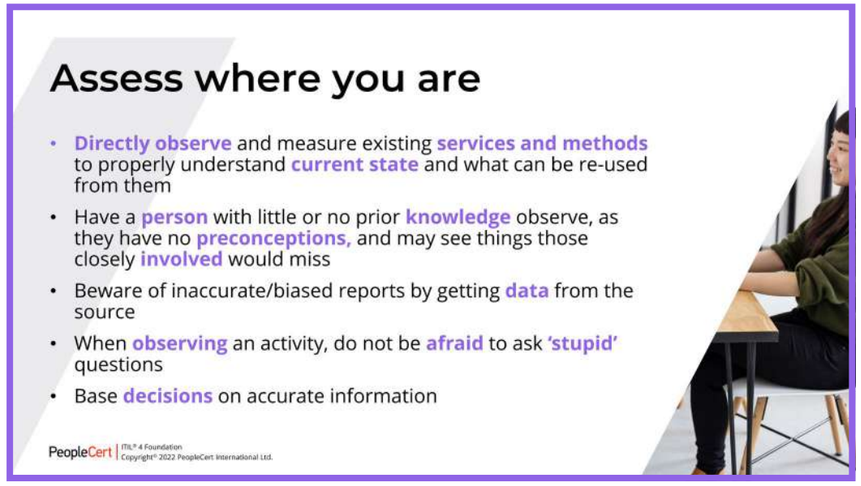


The key message of the start where you are principle is: 'Do not start from scratch and build something new without considering what is already available to be leveraged. There is likely to be a great deal in the current services, processes, programmes, projects, and people that can be used to create the desired outcome.'

In the process of eliminating old, unsuccessful methods or services and creating something better, there can be great temptation to remove what has been done in the past and build something completely new. This is rarely necessary or a wise decision. This approach can be extremely wasteful, not only in terms of time, but also in terms of the loss of existing services, processes, people, and tools that could have significant value in the improvement effort. Do not start over without first considering what is already available to be leveraged.

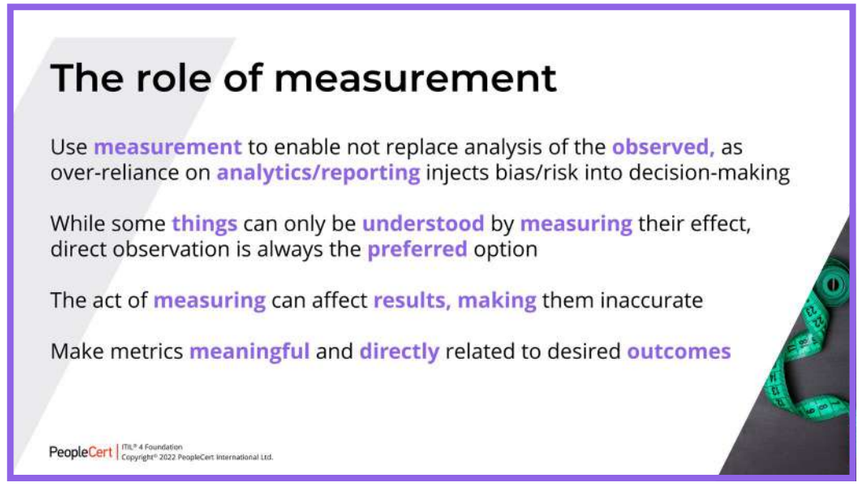
Consider this scenario: You are running a company that is growing from small to medium sized, and you want to replace your old service approach. You have a helpline which is answered by whoever happens to be free, and they usually send someone directly to the desk of the person with the issue. You also have an open door policy, whereby anyone can pop into the IT department to ask for help. You are going to move to a service desk model with ticketing. What would you want to throw out, and is there anything about the old system that is worth keeping?

Notes



This slide outlines some approaches that can be effective when assessing your current state. Getting data from the source helps to avoid assumptions which, if proven to be unfounded, can be disastrous to timelines, budgets, and the quality of results. It can also often be helpful for a person with little or no prior knowledge of the service to observe it, as they have no preconceptions of the service, and may see things those closely involved might miss.

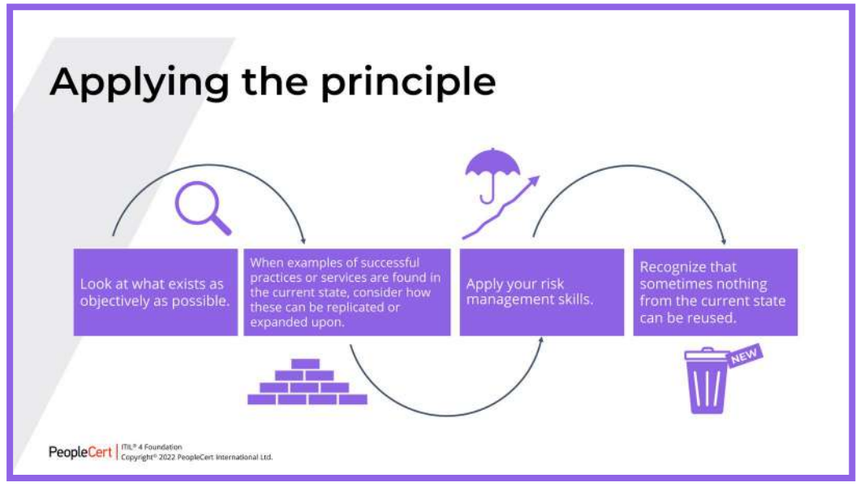
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This slide outlines some approaches that can support measurement. Too often, existing data is used without direct personal investigation. The very act of measuring can render results inaccurate. People find ways to meet metrics they are measured against, so metrics must be meaningful and directly relate to the desired outcomes and behaviors. Remember Goodhart's Law, 'when a measure becomes a target, it ceases to be a good measure'.

Be aware of the ease with which data can be obtained. Analysing an excessive amount of data can constrain your efforts rather than be beneficial. Ultimately, data should always focus on value.

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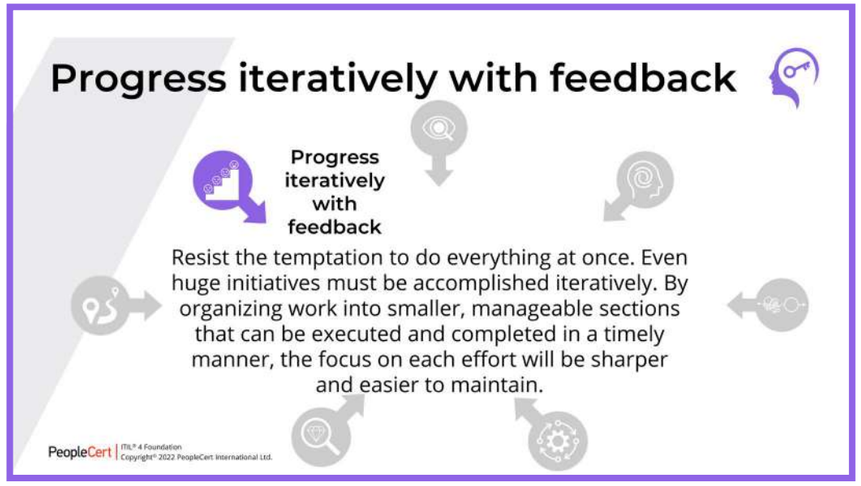
How would you apply the start where you are principle?

Having a proper understanding of the current state of services and methods is important to selecting which elements to reuse, alter, or develop. To apply this principle successfully, consider the following key points:

- Look at what exists as objectively as possible, using the customer or the desired outcome as the starting point. Are the elements of the current state fit for purpose and fit for use? There are likely to be many elements of the current services, practices, projects, and skills that can be used to create the desired future state, provided the people making this judgement are objective.
- When examples of successful practices or services are found in the current state, determine if and how these can be replicated or expanded upon to achieve the desired state. In many, if not most cases, leveraging what already exists will reduce the amount of work needed to transition from the current state to the desired state. There should be a focus on learning and improvement, not just replication and expansion.
- Apply your risk management skills. There are risks associated with reusing existing practices and processes, such as the continuation of old behaviours that are damaging to the service. There are also risks associated with putting something new in place, such as new procedures not being performed correctly. These should be considered as part of the decision-making process, and the risks of making or not making a change evaluated to decide on the best course of action.

Recognize that sometimes nothing from the current state can be reused. Regardless of how desirable it may be to reuse, repurpose, and recycle, or even upcycle, there will be times when the only way to achieve the desired result is to start over. It should be noted, however, that these situations are very rare.

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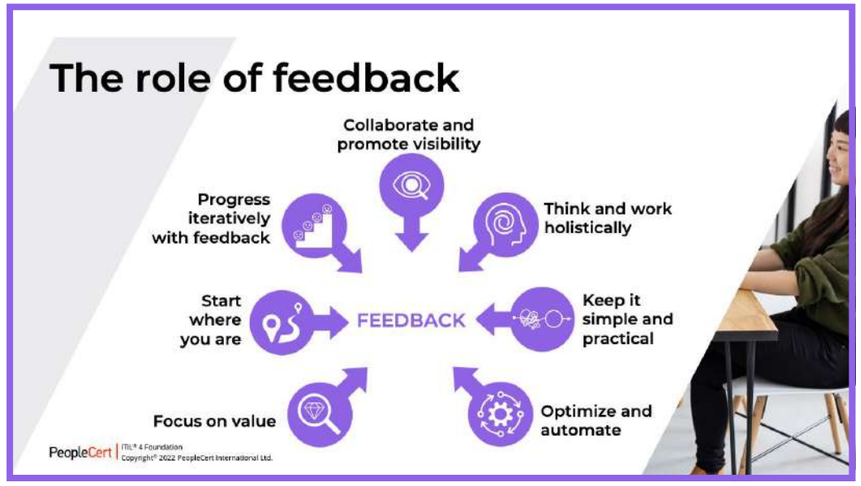


The key message of the progress iteratively with feedback principle is, 'do not attempt to do everything at once. Even huge initiatives must be accomplished iteratively. By organizing work into smaller, manageable sections that can be executed and completed in a timely manner, it is easier to maintain a sharper focus on each effort.'

Improvement iterations can be sequential or simultaneous, based on the requirements of the improvement and what resources are available. Each individual iteration should be both manageable and managed, ensuring that tangible results are returned in a timely manner and developed to create further improvement. A major improvement initiative or programme might be organized into several significant improvement initiatives, and each of these may, in turn, comprise smaller improvement efforts. The overall initiative or programme, as well as its component iterations, must be continually re-evaluated and potentially revised to reflect any changes in circumstances and 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 status of the initiative and its progress are properly understood.

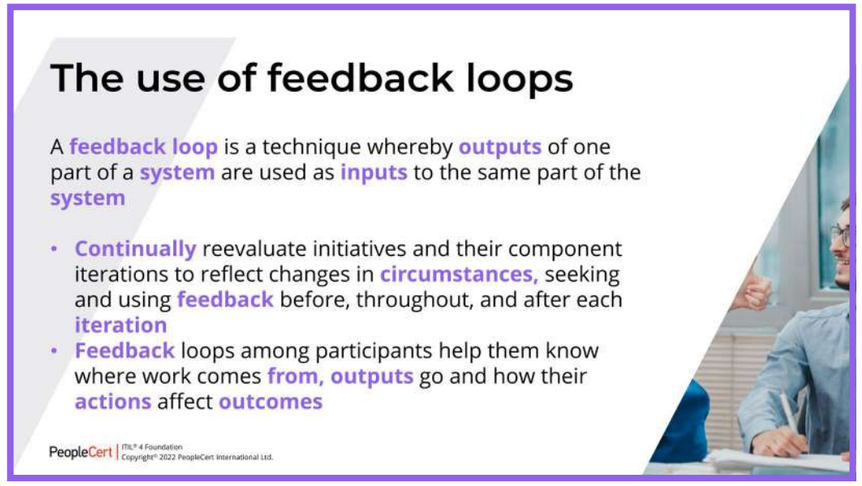
A good axiom here is 'how do you eat an elephant? One bite at a time'. The entire elephant is a meal none of us can manage. Try to think of a large initiative that needs to be undertaken or is being undertaken in your organization. Consider how the elements of that initiative can be broken down, and how those smaller elements can be safely tested.

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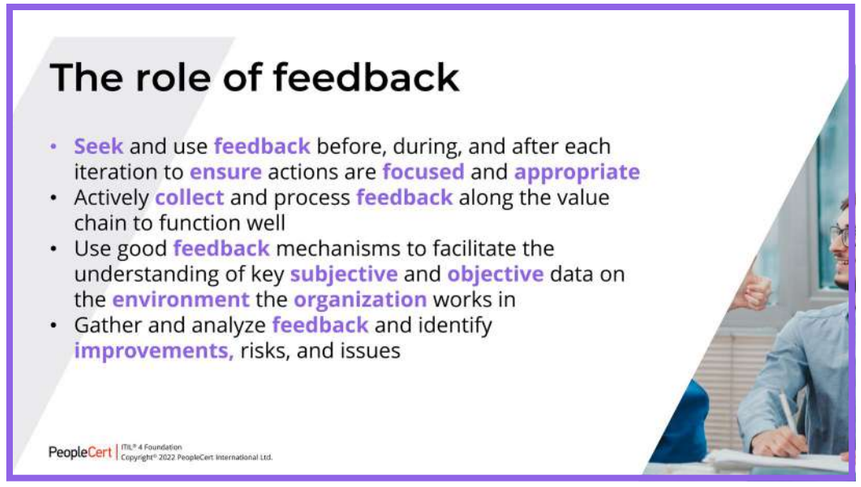
Whether working to improve a service, group of services, practice, process, technical environment, or other service management element, no improvement iteration occurs in a vacuum. As the iteration is occurring, circumstances can change and new priorities can arise, and the need for the iteration may be altered or even eliminated. Seeking and using feedback before, throughout, and after each iteration will ensure that actions are focused and appropriate, even in changing circumstances. Feedback can originate from anywhere at any time.

Notes



A feedback loop is a term commonly used to refer to a situation where part of the output of an activity is used for new input. In a well-functioning organization, feedback is actively collected and processed along the value chain.

Notes



Well-constructed feedback mechanisms facilitate understanding of:

- end-user and customer perception of the value created
- the efficiency and effectiveness of value chain activities
- the effectiveness of service governance as well as management controls
- the interfaces between the organization and its partner and supplier network
- the demand for products and services.

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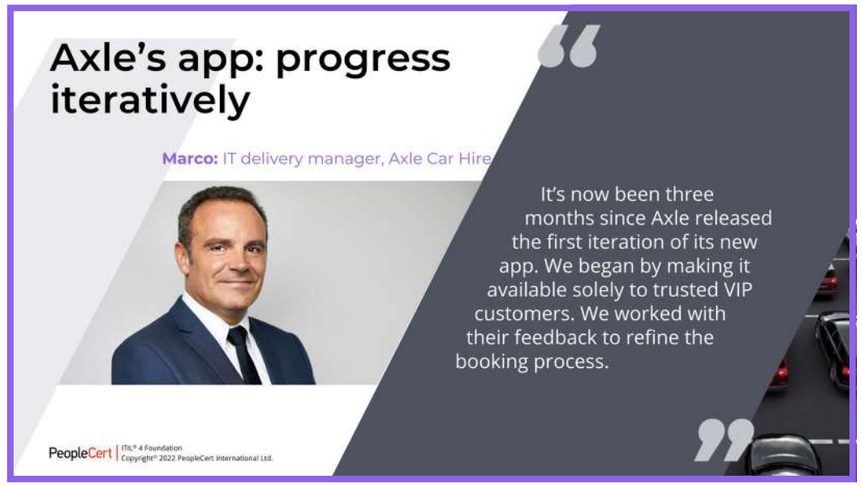


Working in a timeboxed, iterative manner with feedback loops embedded into the process allows for:

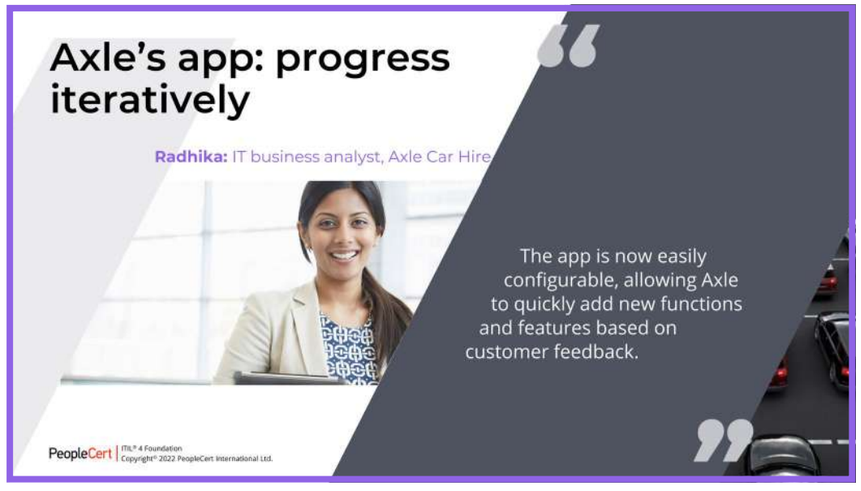
- greater flexibility
- faster responses to customer and business needs
- the ability to discover and respond to failure earlier
- an overall improvement in quality.

Having appropriate feedback loops between the participants of an activity gives them a better understanding of where their work comes from, where their outputs go, and how their actions and outputs affect the outcomes, which in turn enables them to make better decisions.

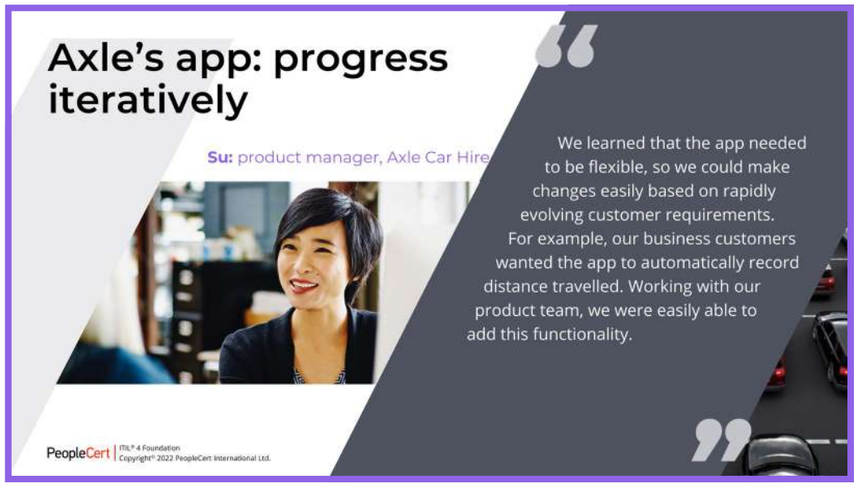
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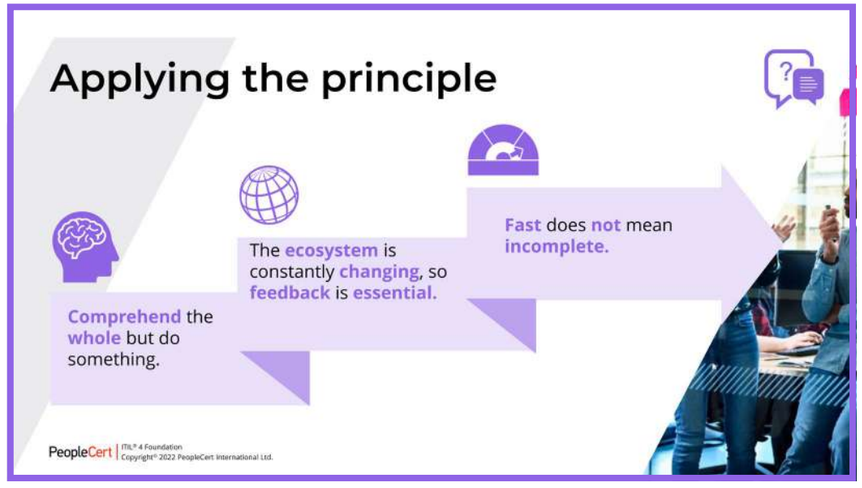
Axle Car Hire is working on a new app to improve its services. It is important that they develop different parts of the app iteratively, rather than trying to create everything at once. The following slides outline Axle's approach to developing the app.



Notes



Notes



How would you apply the progress iteratively with feedback principle?

To apply this principle successfully, consider the following key points:

Comprehend the whole but do something. Sometimes the greatest enemy to progressing iteratively is the desire to understand and account for everything. This can lead to what is sometimes called 'analysis paralysis', in which so much time is spent analysing the situation that nothing ever gets done about it. Understanding the big picture is important but so is making progress.

The ecosystem is constantly changing, so feedback is essential. Change is happening constantly, so it is very important to seek and use feedback at all times and at all levels.

Fast does not mean incomplete just because an iteration is small enough to be done. Quickly does not mean that it should not include all the elements necessary for success. Any iteration should be produced in accordance with the concept of the minimum viable product. A minimum viable product is a version of the final product, which allows the maximum amount of validated learning with the least effort.

Notes



The key message of the collaborate and promote visibility principle is, 'when initiatives involve the right people in the correct roles, efforts benefit from better buy-in, greater relevance (because better information is available for decision-making), and increased likelihood of long-term success.'

Creative solutions, enthusiastic contributions, and important perspectives can be obtained from unexpected sources, so inclusion is generally a better policy than exclusion. Cooperation and collaboration are better than isolated work, which is frequently referred to as 'silo activity'. Silos can occur through the behaviour of individuals and teams, but also through structural causes. This typically happens where functions or business units in an organization are impeded or unable to collaborate, because their processes, systems, documentation, and communications are designed to fulfil the needs of only a specific part of the organization. Applying the guiding principle of think and work holistically can help organizations to remove barriers between silos of work. The recognition of the need for genuine collaboration has been one of the driving factors in the evolution of what is now known as DevOps. Without effective collaboration, neither Agile, Lean, nor any other ITSM framework or method will work.

A good axiom here is 'inclusion is always better than exclusion'. The more people we include in a decision, the better the decision and the better the end result generally, and also the higher level of buy-in. The concomitant reality is a probable longer process, particularly if we seek consensus. However, we do not need to seek consensus, only to be clear that we value people's input, without guaranteeing them a sign-off of agreement with the outcome.

Notes



The contribution to the improvement of each stakeholder group at each level should be understood. It is also important to define the most effective methods to engage with them. For example, the contribution to improvement from customers of a public cloud service may be through a survey or checklist of options for different functionalities. For an internal customer group, the contribution to improvement may come from feedback solicited via a workshop or a collaboration tool on the organization's intranet.

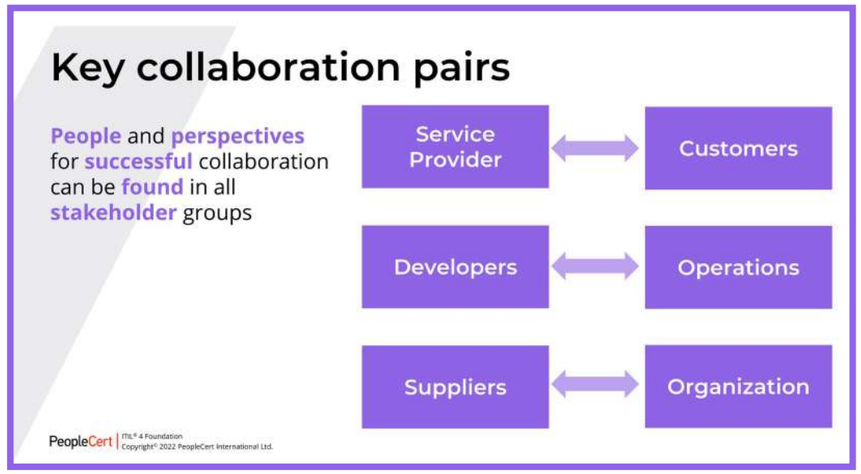
When stakeholders have poor visibility of the workload and progression of work, there is a risk of creating the impression that the work is not a priority. If an initiative is communicated to a team, department, or another organization and then is never, or rarely, mentioned again, the perception will be that the change is not important. Equally, when staff members attempt to prioritize improvement work versus other tasks that have daily urgency, improvement work may seem to be a low-priority activity, unless its importance has been made transparent and is supported by the organization's management. The insufficient visibility of work leads to poor decision-making, which impacts the organization's ability to improve internal capabilities.

To avoid this, the organization needs to perform critical analysis activities, such as:

- understanding the flow of work in progress
- identifying bottlenecks, as well as excess capacity
- uncovering waste.

Consider what current methods you use to deal with this in your own organization.

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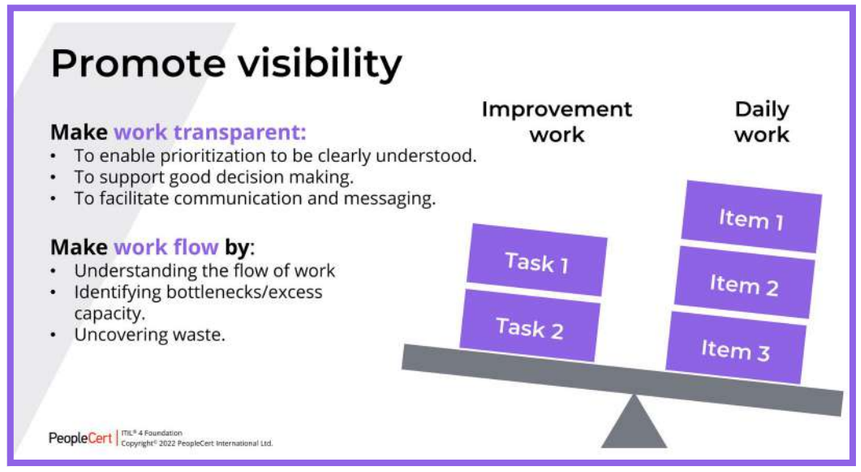


Here we see some examples of key collaboration pairs. Your main goal as a provider is to facilitate outcomes customers want. The right level of collaboration with them improves outcomes for the organization, its customers, and for other stakeholders.

Developers can collaborate with other teams to ensure what is developed can be operated efficiently and effectively, and to ensure those teams are ready, willing, and able to transition new or changed services into operation and even help in testing; developers can work with operations teams to investigate defects and develop workarounds or fixes.

Suppliers can collaborate with the organization to define requirements and brainstorm solutions, and with other suppliers to review shared processes and identify opportunities for optimization and potential automation.

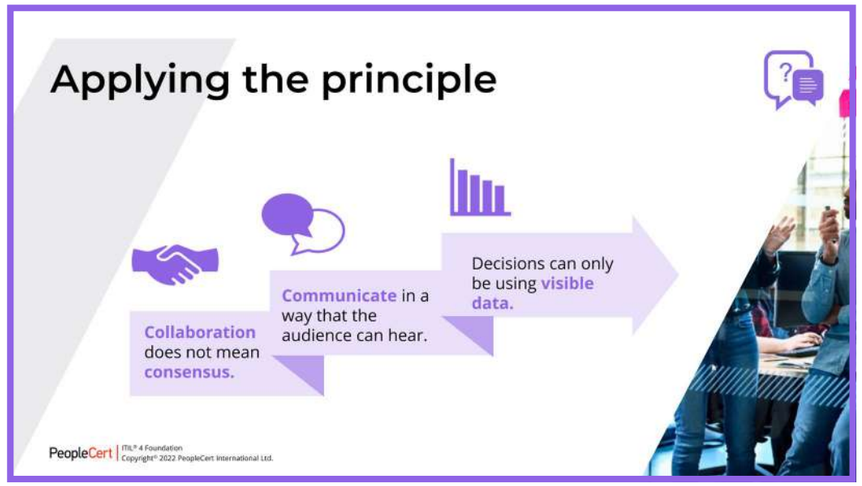
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Insufficient visibility of work leads to poor decision-making, which in turn impacts the organization's ability to improve internal capabilities. It will then become difficult to drive improvements as it will not be clear which ones are likely to have the greatest positive impact on results. To avoid this, the organization needs to perform such critical analysis activities as:

- understanding the flow of work in progress
- identifying bottlenecks, as well as excess capacity
- uncovering waste.

Notes



How would you apply the collaborate and promote visibility principle?

To apply this principle successfully, consider the following key points:

- Explain that collaboration does not mean consensus. It is not necessary, or even always wise, to get consensus from everyone involved in an initiative before proceeding. Some organizations are so concerned with getting consensus that they try to make everyone happy and end up either doing nothing or producing something that does not properly suit anyone's needs.
- Explain to communicate in a way that the audience can hear. To bring different stakeholders into the loop, many organizations use very traditional methods of communication, or they use the same method for all communication. Selecting the right method and message for each audience is critical for success.
- Explain that decisions can only be made using visible data. Making decisions in the absence of data is risky. Decisions should be made about what data is needed, and therefore what work needs to be made visible. There may be a cost to collecting data, and the organization must balance that cost against the benefit and intended usage of the data.

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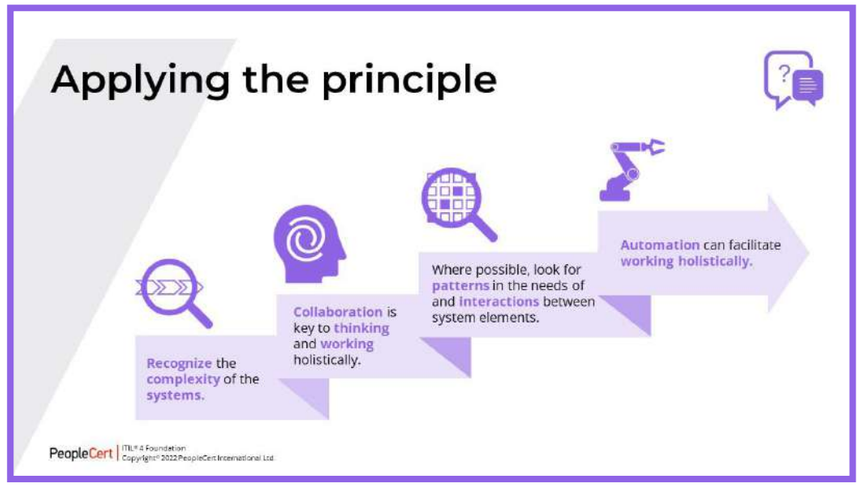


The key message of the think and work holistically principle is, 'no service, practice, process, department, or supplier works in a vacuum. The outputs that the organization delivers to itself, its customers, and other stakeholders will suffer, unless it works in an integrated way to handle its activities as a whole, rather than as separate parts. All the organization's activities should be focused on the delivery of value.'

Services are delivered to internal and external service consumers via the coordination and integration of the four dimensions of service management. A holistic approach to service management includes understanding how all parts of an organization collaborate in an integrated way. It requires end-to-end visibility of how demand is captured and translated into outcomes. In a complex system, the alteration of one element can impact others and, where possible, these impacts need to be identified, analysed, and planned for. A good axiom here is 'gain a systemic understanding'. Components that we can look at are part of a greater whole, and we must keep that larger whole in view and consider the impact of what we do on the larger system. In an organizational development lens, this is called 'systems thinking', and there is plenty you can valuably read about it after the programme.

Module 4
The guiding principles

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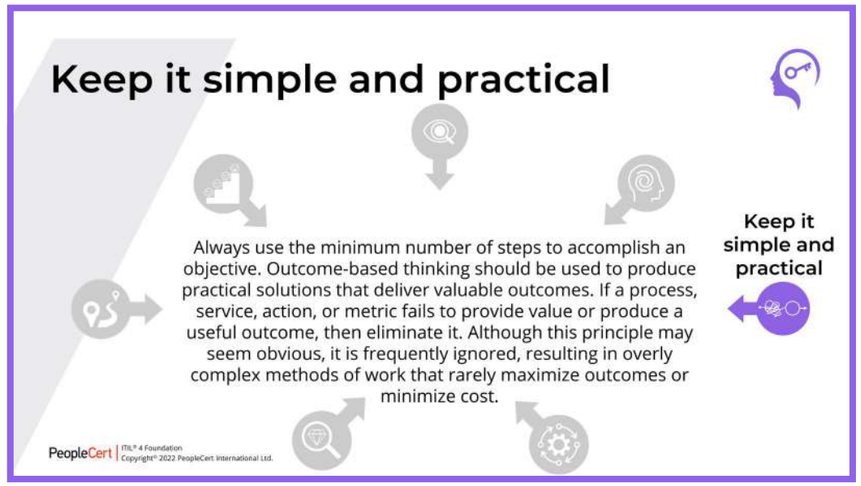


How would you apply the think and work holistically principle?

To apply this principle successfully, consider the following key points:

- Recognize the complexity of the systems. Different levels of complexity require different heuristics for decision-making. Applying the methods and rules designed for a simple system can be ineffective or even harmful in a complex system, where relationships between components are complicated and change more frequently.
- Collaboration is key to thinking and working holistically. If the right mechanisms are established for all of the relevant stakeholders to collaborate in a timely manner, issues can be addressed holistically without delay.
- Where possible, look for patterns in the needs of and interactions between system elements. Use knowledge in each area to identify what is essential for success, and which relationships between elements influence the outcomes. With this information, needs can be anticipated, standards can be set, and a holistic viewpoint can be achieved.
- Automation can facilitate working holistically. Where the opportunity and sufficient resources are available, automation can support end-to-end visibility for the organization and provide an efficient means of integrated management.

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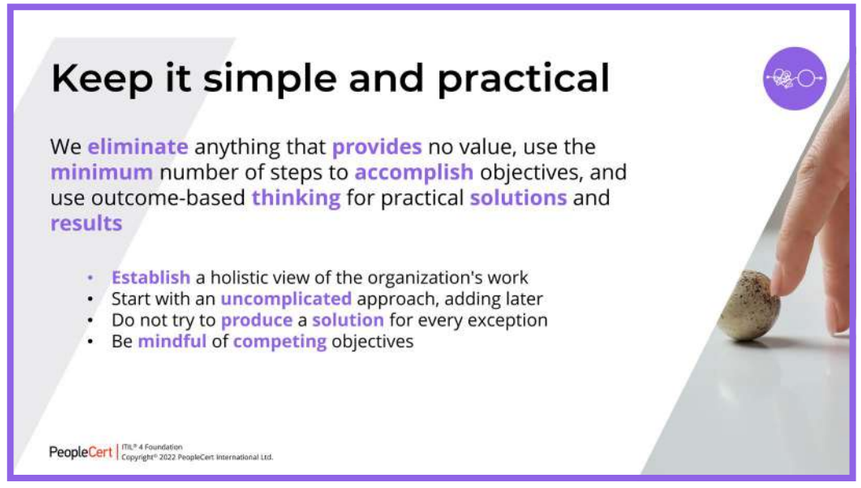


The key message of the keep it simple and practical principle is: `The minimum number of steps should always be used to accomplish an objective. Outcome-based thinking should be used to produce practical solutions that deliver valuable outcomes. If a process, service, action, or metric fails to provide value or produce a useful outcome, then eliminate it. Although this principle may seem obvious, it is frequently ignored, resulting in overly complex methods of work that rarely maximize outcomes or minimize cost.'

Trying to provide a solution for every exception is excessive. When creating a process or a service, designers need to think about exceptions, but they cannot cover them all. Instead, rules should be designed that can be used to handle general exceptions. A good axiom here is `simplicity is the ultimate in sophistication'. Apple has made a fortune by creating simple looking products with simple interfaces which people can interact with easily to get great results.

It is tough to take something that started off simple and keep it simple over time. We start off with a simple idea or procedure, and someone develops an exception, and we add and add those 'what if' sidelines, making our procedure complex and unwieldy. Away from IT, you can see this in the huge books of expenses rules that companies create to avoid having to manage people. We should be able to sit down with our employees and take them to task if they spend excessively on their expenses. Instead, we create enormous books of rules to spare our managers from doing that part of their job.

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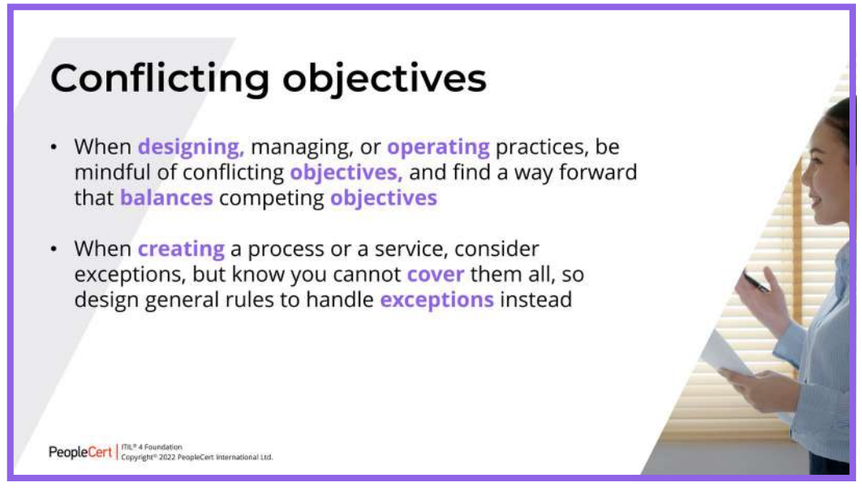


Trying to provide a solution for every exception will often lead to over-complication. When creating a process or a service, designers need to think about exceptions, but they cannot cover them all. Instead, rules should be designed that can be used to handle exceptions generally.



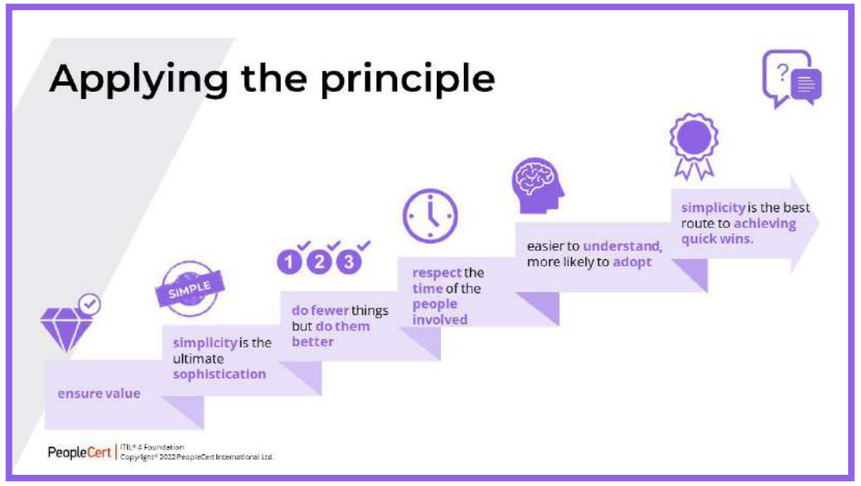
Critical to keeping service management simple and practical is understanding exactly how something contributes to value creation. For example, a step in a process may be perceived by the operational staff involved as a waste of time. However, from a corporate perspective, the same step may be important for regulatory compliance and therefore valuable in an indirect, but nevertheless important way. This slide outlines some key advice to consider when judging what to keep.

Notes



When designing, managing, or operating practices, be mindful of conflicting objectives. For example, the management of an organization may want to collect a large amount of data to make decisions, whereas the people who must do the record-keeping may want a simpler process that does not require as much data entry. Through the application of this and the other guiding principles, the organization should agree on a balance between its competing objectives. In this example, this could mean that services should only generate data that will truly provide value to the decision-making process, and record-keeping should be simplified and automated where possible to maximize value and reduce non-value-adding work.

Notes



How would you apply the keep it simple and practical principle?

To apply this principle successfully, consider the following key points:

- Ensure that every activity contributes to the creation of value.
- Simplicity is the ultimate sophistication. It may seem harder to simplify, but it is often more effective.
- Do fewer things but do them better. Minimize activities to only include those that have value for one or more stakeholders. This will enable stakeholders to focus on creating the greatest value from those activities.
- Respect the time of the people involved: A process that is too complicated and bureaucratic is a poor use of the time of the people involved.
- Easier to understand, more likely to adopt: To embed a practice, make sure it is easy to follow.
- Simplicity is the best route to achieving quick wins: Whether in a project, or when improving daily operations activities, quick wins allow organizations to demonstrate progress and manage stakeholder expectations. Working in an iterative way with feedback will quickly deliver incremental value at regular intervals.

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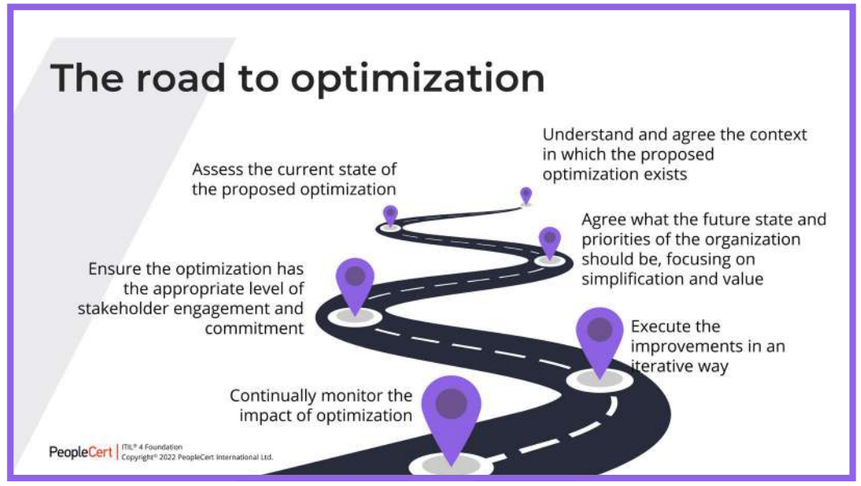


The key message of the optimize and automate principle is, 'organizations must maximize the value of the work performed by their human and technical resources.' The four dimensions model provides a holistic view of the various constraints, resource types, and other areas that should be considered when designing, managing, or operating an organization. Technology can help organizations to expand and undertake frequent and repetitive tasks, allowing human resources to be used for more complex decision-making. However, technology should not always be relied upon without the capability of human intervention, as automation for automation's sake can increase costs and reduce organizational robustness and resilience.

Optimization means to make something as effective and useful as it needs to be. Before an activity can be effectively automated, it should be optimized to whatever degree is possible and reasonable. It is essential that limits are set on the optimization of services and practices, as they exist within a set of constraints which may include financial limitations, compliance requirements, time constraints, and resource availability.

A useful definition of automation is 'having technology do something that a human being once did,' but we could also think of it as 'giving people limits or boundaries,' in that if, for example, you want to request a smartphone, we will go through a series of qualification procedures (are you a manager, do you need to access certain systems) so that the process is objective and repeatable, rather than subjective and easy to challenge.

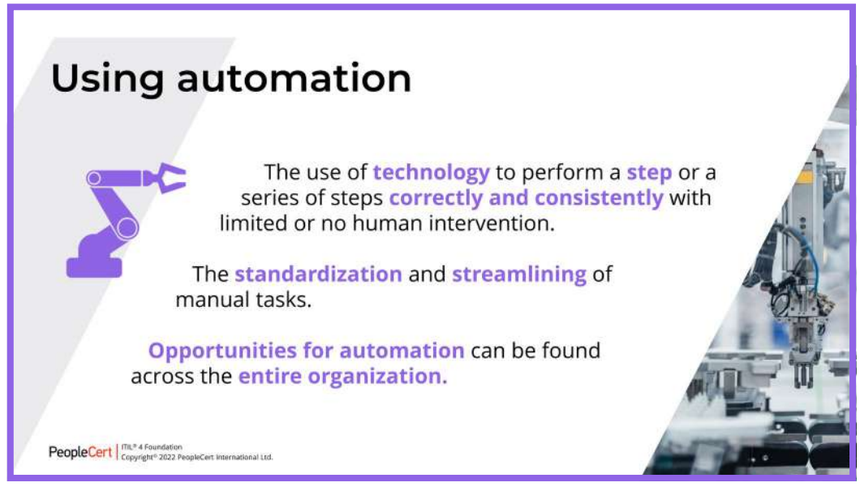
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The path to optimization follows these high-level steps:

- Understand and agree the context in which the proposed optimization exists. This includes agreeing the overall vision and objectives of the organization.
- Assess the current state of the proposed optimization. This will help to understand where it can be improved, and which improvement opportunities are likely to produce the biggest positive impact.
- Agree what the future state and priorities of the organization should be, focusing on simplification and value. This typically also includes standardization of practices and services, which will make it easier to automate or optimize further at a later point.
- Ensure that the optimization has the appropriate level of stakeholder engagement and commitment.
- Execute the improvements in an iterative way. Use metrics and other feedback to check progress, stay on track, and adjust the approach to the optimization as needed.
- Continually monitor the impact of optimization. This will help to identify opportunities to improve methods of working.

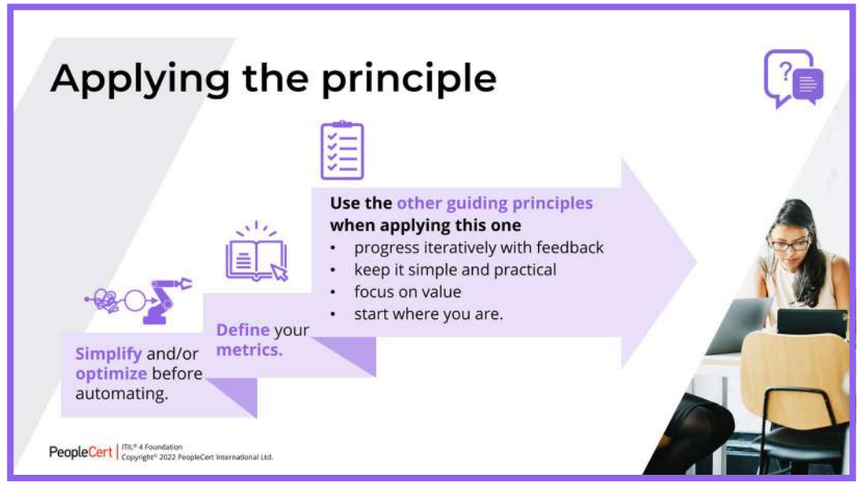
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Automation typically refers to the use of technology to perform a step or a series of steps correctly and consistently with limited or no human intervention. For example, in organizations adopting continuous deployment, it refers to the automatic and continuous release of code from development through to live, and often automatic testing occurring in each environment. In its simplest form, however, automation could also mean the standardization and streamlining of manual tasks, such as defining the rules of part o f a process to allow decisions to be made 'automatically.'

Efficiency can be greatly increased by reducing the need for human involvement to stop and evaluate each part of a process. Opportunities for automation can be found across the entire organization. Explore opportunities to automate standard and repeating tasks to help save the organization costs, reduce human error, and improve the employee experience.

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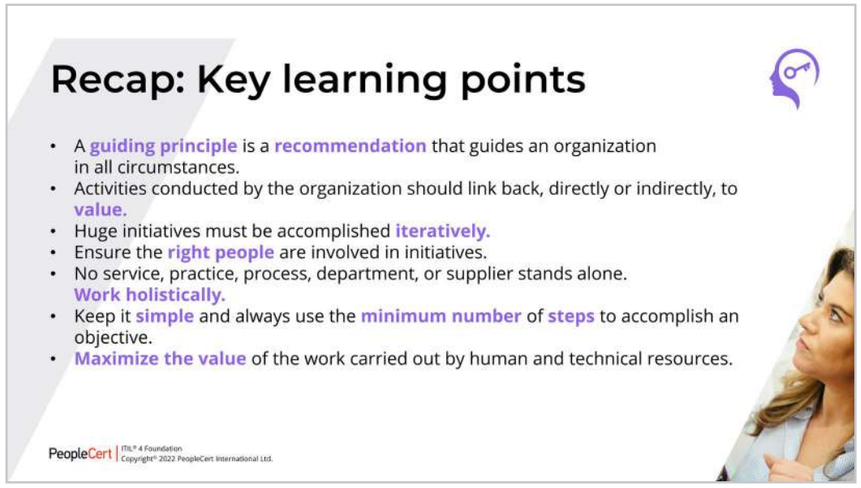


How would you apply the optimize and automate principle?

To apply this principle successfully, consider the following key points:

- **Simplify and/or optimize before automating** Attempting to automate something that is complex or suboptimal is unlikely to achieve the desired outcome. Plan the standard and repeating processes as far as possible and streamline where you can (optimize). From there, you can start to automate.
- **Define your metrics** The intended and actual result of the optimization should be evaluated using an appropriate set of metrics. Use the same metrics to define the baseline and measure the achievements. Ensure that the metrics are outcome-based and focused on value.
- **Use the other guiding principles when applying this one** When optimizing and automating, it is smart to follow the other principles as well:
  - **Progress iteratively with feedback** Iterative optimization and automation will make progress visible and increase stakeholder buy-in for future iterations.
  - **Keep it simple and practical** It is possible for something to be simple, but not optimized, so use these two principles together when selecting improvements.
  - **Focus on value** Selecting what to optimize and automate and how to do so should be based on what will create the best value for the organization.
  - **Start where you are** The technology already available in the organization may have features and functionalities that are currently untapped or underutilized. Use what is already there to implement opportunities for optimization and automation quickly and economically.

Notes

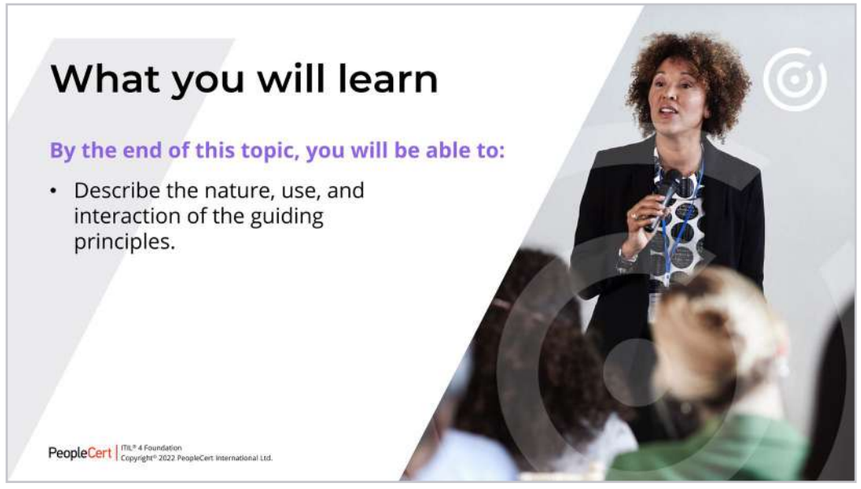


This slide outlines the key learning points that were covered in this topic.

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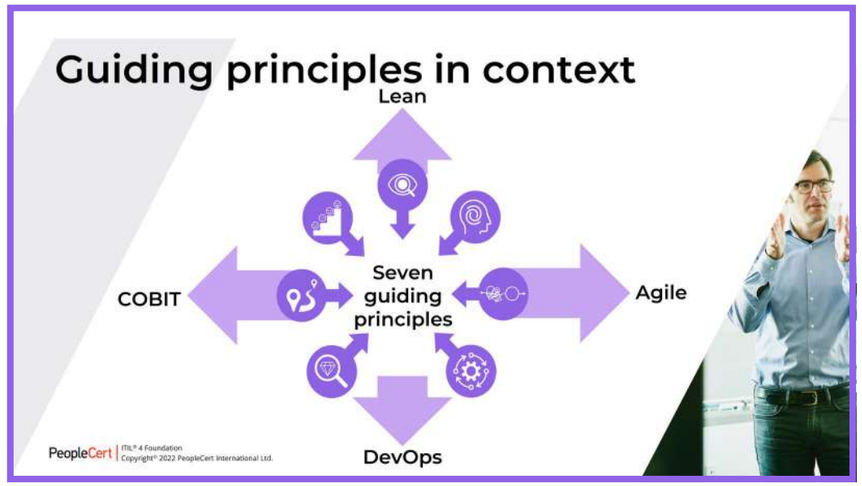
4.2 Using the guiding principles





This slide outlines the key learning points that will be covered in this topic.

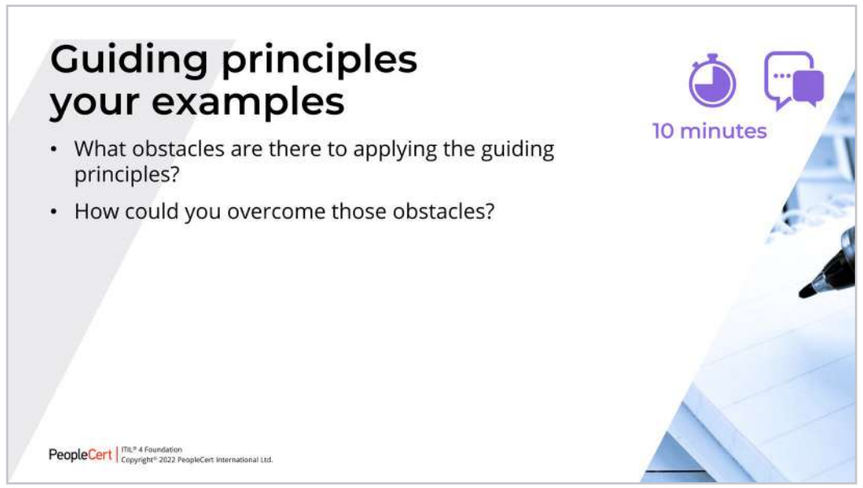
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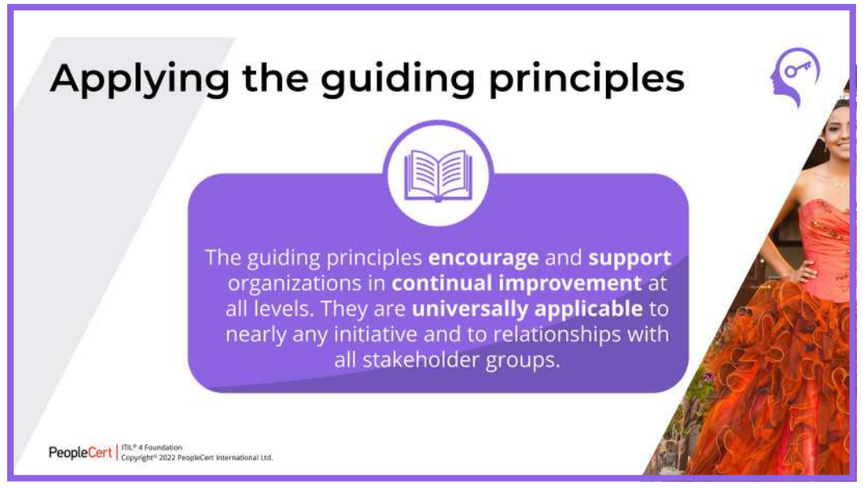
The guiding principles are also reflected in many other frameworks, methods, standards, philosophies, and/or bodies of knowledge, such as Lean, Agile, DevOps, and COBIT. This allows organizations to effectively integrate the use of multiple methods into an overall approach to service management. The guiding principles are applicable to practically any initiative and to all relationships with stakeholder groups. For example, the first principle, focus on value, can (and should) be applied not only to service consumers, but to all relevant stakeholders and their respective definitions of value.

Module 4
The guiding principles

Notes

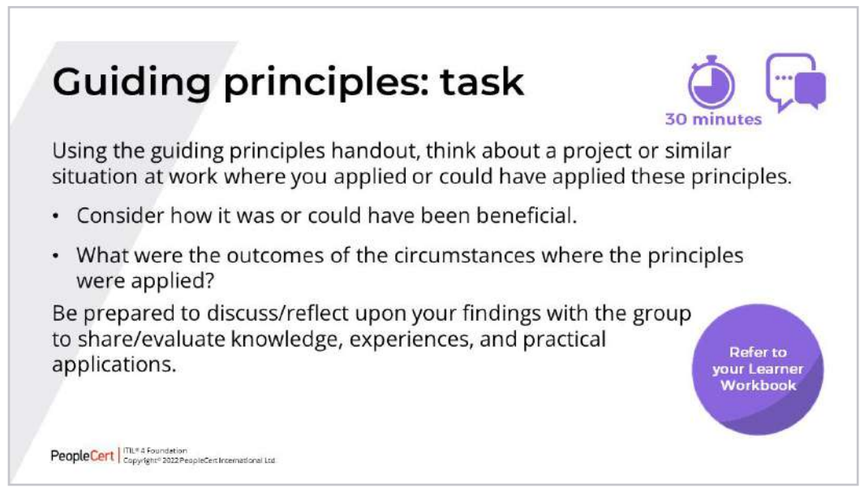


Consider your own organization, and any obstacles you might face in applying the guiding principles. What could you do to overcome these obstacles?



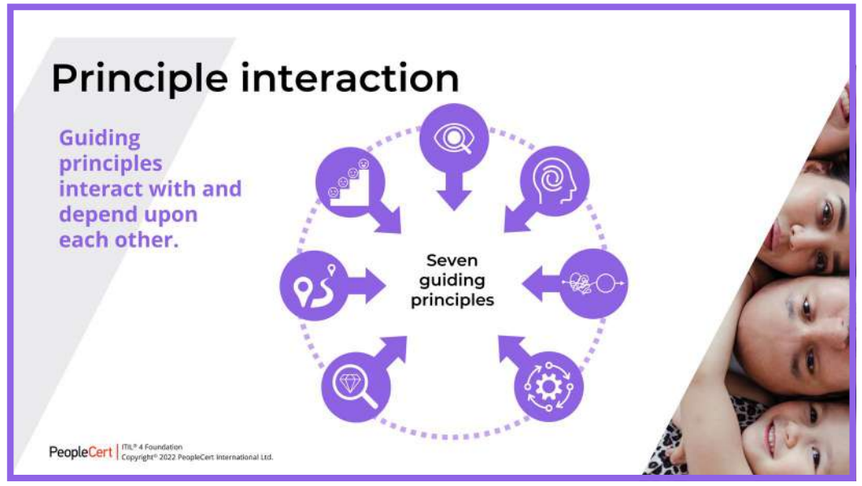
Guiding principles are universal and enduring. They are applicable to any circumstance, situation or decision to be made, not just within service management contexts. Consider how you could apply the principles to a real-life situation, such as buying clothes for a formal occasion.

Notes



Module 4
The guiding principles

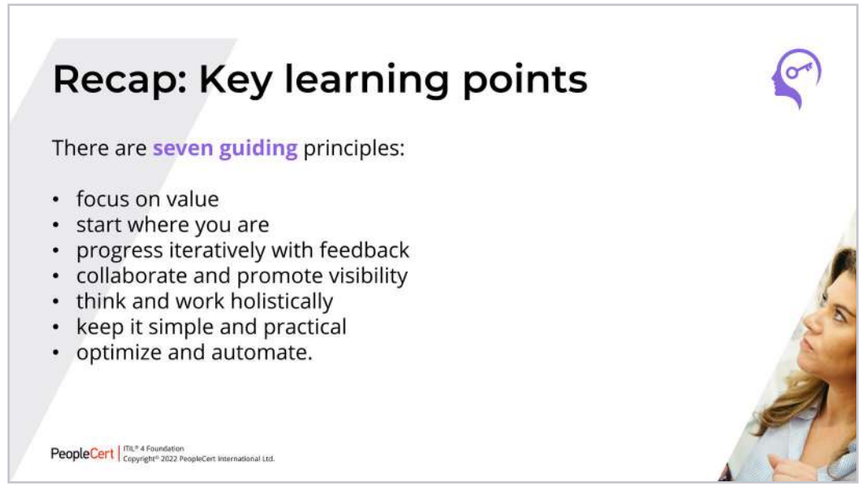
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As well as being aware of the ITIL guiding principles, it is also important to recognize that they interact with and depend upon each other. For example, if an organization is committed to progressing iteratively with feedback, it should also think and work holistically, to ensure that each iteration of an improvement includes all the elements necessary to deliver results. Similarly, making use of appropriate feedback is key to collaboration, and focusing on what will truly be valuable to the customer makes it easier to keep things simple and practical.

Organizations should not use just one or two of the principles but should consider the relevance of each of them and how they apply together. Not all principles will be critical in every situation, but they should all be reviewed on each occasion to determine how appropriate they are.

Notes



This slide outlines the key learning points that were covered in this topic.

Notes

Review and reflect quiz

Questions:

1. What is a guiding principle?
2. List the seven guiding principles
3. What should you **NOT** do with individual guiding principles?
4. Complete the missing words.
   The [?] to optimization.
5. Complete the missing words.
   Increasing [?] through [?]

Answers:

1. A guiding principle is a recommendation that guides an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure. A guiding principle is universal and enduring.
2. The seven guiding principles are:
   1. focus on value
   2. start where you are
   3. progress iteratively with feedback
   4. collaborate and promote visibility
   5. think and work holistically
   6. keep it simple and practical
   7. optimize and automate.
3. Use them in isolation.
4. The **road** to optimization.
5. Increasing **urgency** through **visibility**.

Module 4
The guiding principles

Quiz – Sample paper questions

Questions:

1. Which service management dimension is focused on activities, and how they are coordinated? ?
   A. organizations and people
   B. information and technology
   C. partners and suppliers
   D. value streams and processes

2. Which guiding principle recommends that the four dimensions of service management are considered?
   A. think and work holistically
   B. progress iteratively with feedback
   C. focus on value
   D. keep it simple and practical

3. Which guiding principle recommends collecting data before deciding what can be reused?
   A. focus on value
   B. start where you are
   C. keep it simple and practical
   D. progress iteratively with feedback

4. Which value chain activity ensures that people understand the organization's vision?
   A. improve
   B. plan
   C. deliver
   D. obtain/build

5. Which ITIL concept describes governance?
   A. the seven guiding principles
   B. the four dimensions of service management
   C. the service value chain
   D. the service value system

Answers:

1. Which service management dimension is focused on activities, and how they are coordinated? ?
   A. organizations and people
   B. information and technology
   C. partners and suppliers
   D. value streams and processes

2. Which guiding principle recommends that the four dimensions of service management are considered?
   A. think and work holistically
   B. progress iteratively with feedback
   C. focus on value
   D. keep it simple and practical

3. Which guiding principle recommends collecting data before deciding what can be reused?
   A. focus on value
   B. start where you are
   C. keep it simple and practical
   D. progress iteratively with feedback

4. Which value chain activity ensures that people understand the organization's vision?
   A. improve
   B. plan
   C. deliver
   D. obtain/build

5. Which ITIL concept describes governance?
   A. the seven guiding principles
   B. the four dimensions of service management
   C. the service value chain
   D. the service value system

Rationales:

1. Which service management dimension is focused on activities, and how they are coordinated? ?

A. Incorrect. The 'organizations and people' dimension describes "roles and responsibilities, formal organizational structures, culture, and required staffing and competencies". Ref 3.1

B. Incorrect. The 'information and technology' dimension includes "the information and knowledge necessary for the management of services, as well as the technologies required" and "the information created, managed, and used in the course of service provision and consumption, and the technologies that support and enable that service". Ref 3.2

C. Incorrect. "The partners and suppliers dimension encompasses an organization's relationships with other organizations that are involved in the design, development, deployment, delivery, support, and/or continual improvement of services. It also incorporates contracts and other agreements between the organization and its partners or suppliers." Ref 3.3

D. Correct. The 'value streams and processes' dimension "focuses on what activities the organization undertakes and how they are organized, as well as how the organization ensures that it is enabling value creation for all stakeholders efficiently and effectively". Ref 3.4

2. Which guiding principle recommends that the four dimensions of service management are considered?

A. Correct. The 'think and work holistically' guiding principle advises that all aspects of an organization are considered when providing value in the form of services. This includes all four dimensions of service management (organizations and people; information and technology; partners and suppliers; value streams and processes). "Services are delivered to internal and external service consumers through the coordination and integration of the four dimensions of service management." Ref 4.3.5

B. Incorrect. The 'progress iteratively with feedback' guiding principle is concerned with breaking initiatives into manageable sections that can be executed more easily. It is not primarily concerned with addressing the four dimensions of service management. Ref 4.3.3

C. Incorrect. The 'focus on value' guiding principle ensures that everything that the organization does links back to providing value to service consumers. It is not primarily concerned with addressing the four dimensions of service management. Ref 4.3.1

D. Incorrect. The 'keep it simple and practical' guiding principle focuses on keeping things simple by reducing complexity and eliminating unnecessary activities and steps. It is not primarily concerned with addressing the four dimensions of service management. Ref 4.3.6

3. Which guiding principle recommends collecting data before deciding what can be reused?

A. Incorrect. The 'focus on value' guiding principle states that "All activities conducted by the organization should link back, directly or indirectly, to value for itself, its customers, and other stakeholders". Ref 4.3.1

B. Correct. The 'start where you are' guiding principle recommends that "Services and methods already in place should be measured and/or observed directly to properly understand their current state and what can be reused from them… Getting data from the source helps to avoid assumptions which, if proven to be unfounded, can be disastrous to timelines, budgets, and the quality of results". Ref 4.3.2

C. Incorrect. The 'keep it simple and practical' guiding principle states that an organization should "Always use the minimum number of steps needed to accomplish an objective". Ref 4.3.6

D. Incorrect. The 'progress iteratively with feedback' principle states that "By organizing work into smaller, manageable sections that can be executed and completed in a timely manner, the focus on each effort will be sharper and easier to maintain". Ref 4.3.3

4. Which value chain activity ensures that people understand the organization's vision?

A. Incorrect. The purpose of the 'improve' value chain activity is "to ensure continual improvement of products, services, and practices across all value chain activities and the four dimensions of service management". Ref 4.5.2

B. Correct. The purpose of the 'plan' value chain activity is "to ensure a shared understanding of the vision, current status, and improvement direction for all four dimensions and all products and services across the organization". Ref 4.5.1

C. Incorrect. The purpose of the 'deliver and support' value chain activity is "to ensure that services are delivered and supported according to agreed specifications and stakeholders' expectations". Ref 4.5.6

D. Incorrect. The purpose of the 'obtain/build' value chain activity is "to ensure that service components are available when and where they are needed and meet agreed specifications". Ref 4.5.5

5. Which ITIL concept describes governance?

A. Incorrect. The seven guiding principles are 'focus on value', 'start where you are', 'progress iteratively with feedback', 'collaborate and promote visibility', 'think and work holistically', 'keep it simple and practical', and 'optimize and automate'. Ref 4.3

B. Incorrect. The four dimensions of service management are 'organizations and people', 'information and technology', 'partners and suppliers', and 'value streams and processes'. Ref 3.1-3.4

C. Incorrect. The activities of the service value chain are 'plan', 'improve', 'engage', 'design and transition', 'obtain/build', and 'deliver and support'. Ref 4.5

D. Correct. The components of the service value system are 'guiding principles', 'governance', 'service value chain', 'practices', and 'continual improvement'. Ref 4.1

Module 4
The guiding principles

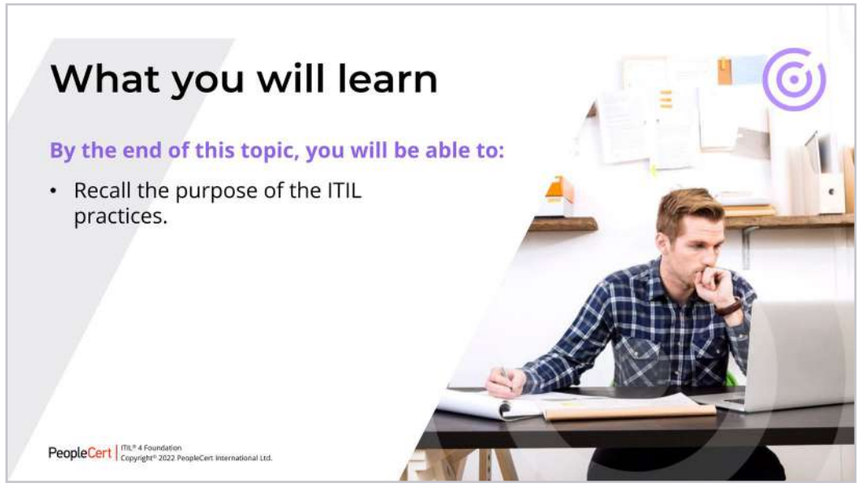
Module 5
ITIL 4 management practices

5.1 Purpose of the ITIL practices
5.2 Overview of eight ITIL practices
5.3 Key management practices – Part 1
5.4 Key management practices – Part 2
5.5 Key management practices – Part 3



5.1 Purpose of the ITIL practices





This slide outlines the key learning points that will be covered in this topic.



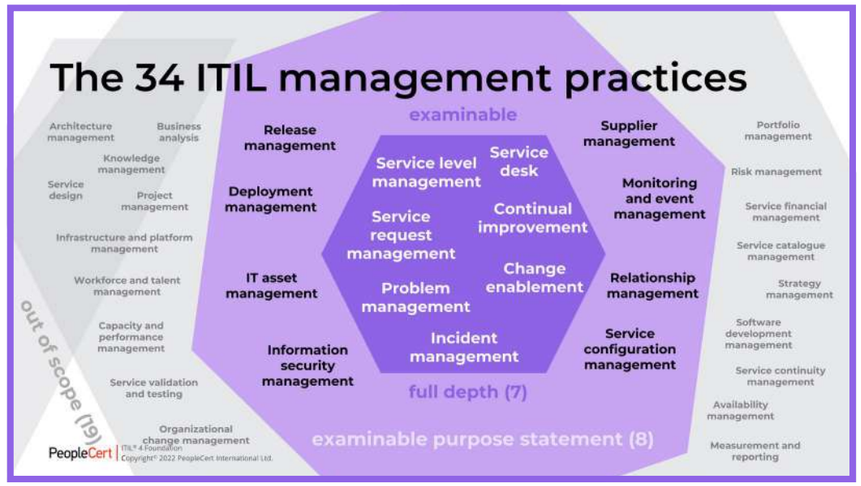
In ITIL, a management practice is a set of organizational resources designed for performing work or accomplishing an objective. As shown in the diagram, the practices can be categorized into three broad streams, but there are overlaps between them.

Notes

Notes



Practices may be called capabilities, hierarchies, processes, or procedures in different organizations. Some organizations may even refer to practices as teams or departments, which contributes to silos and constrains collaboration. This is incorrect as practices are meant to interact and synergize, rather than being limited to specific groups of people. ITIL 4 means something quite specific by the term practices, and something different and quite specific for processes, which are a subset of practices. It should be noted that in ITIL v3, practices were called processes. It is important not to confuse these terms in the context in which they are used in ITIL 4.



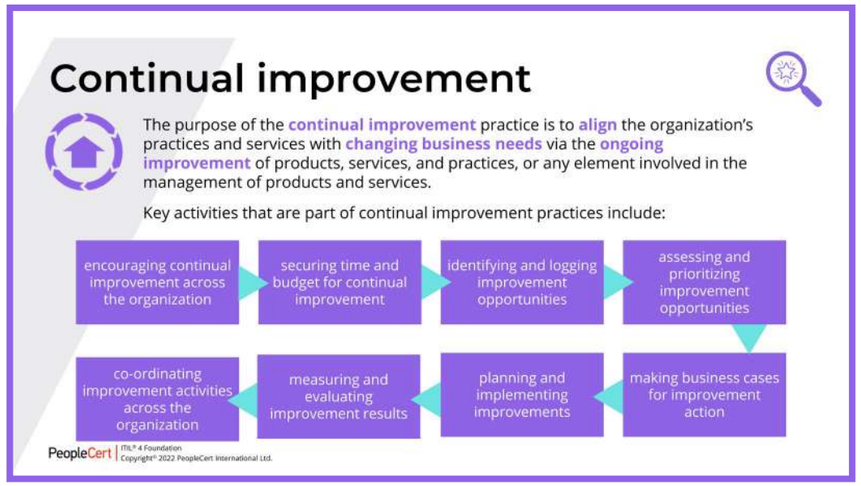
This slide shows all 34 ITIL practices. 19 of these practices are out of scope of the Foundation examination and therefore of this training.

15 ITIL practices are required for the ITIL 4 Foundation exam. Eight of these are examinable but require only an awareness at the level of the purpose statement, and the remaining seven are the key management practices, examinable in full depth. Information is on the 19 practices that are out of scope can be found on MyAxelos, which can be accessed after accreditation.

Notes

Module 5
ITIL 4 Management practices

Notes



The purpose of the continual improvement practice is to align the organization's practices and services with changing business needs via the ongoing improvement of products, services, and practices, or any element involved in the management of products and services.

The key activities of continual improvement practices include:

- encouraging continual improvement across the organization
- securing time and budget for continual improvement
- identifying and logging improvement opportunities
- assessing and prioritizing improvement opportunities
- making business cases for improvement action
- planning and implementing improvements
- measuring and evaluating improvement results
- coordinating improvement activities across the organization.

Included in the scope of the continual improvement practice is the development of improvement-related methods and techniques and the propagation of a continual improvement culture across the organization, in alignment with the organization's overall strategy. The commitment to and practice of continual improvement must be embedded into every fibre of the organization. If it is not, there is a real risk that daily operational concerns and major project work will eclipse continual improvement efforts.

The 'detailed practice' icon on the slide denotes that this is one of the seven practices to be covered in detail in another topic. This icon will be used throughout this topic to highlight the other detailed practices.

Notes



The purpose of the information security management practice is to protect the information needed by the organization to conduct its business. This includes understanding and managing risks to the confidentiality, integrity, and availability of information. It also includes other aspects of information security such as authentication (ensuring someone is who they claim to be) and non-repudiation (ensuring that someone cannot deny that they did something).

Notes



The purpose of the relationship management practice is to establish and nurture the links between the organization and its stakeholders at strategic and tactical levels. It includes the identification, analysis, monitoring, and continual improvement of relationships with and between stakeholders.

The relationship management practice ensures:

- stakeholders' needs and drivers are understood, and products and services are prioritized appropriately
- stakeholders' satisfaction is high, and a constructive relationship between the organization and the stakeholders is established and maintained
- customers' priorities for new or changed products and services, in alignment with desired business outcomes, are effectively established and articulated
- any stakeholders' complaints and escalations are handled well through a sympathetic (yet formal) process
- products and services facilitate value creation for the service consumers, as well as for the organization
- the organization facilitates value creation for all stakeholders, in line with its strategy and priorities
- conflicting stakeholder requirements are mediated appropriately.

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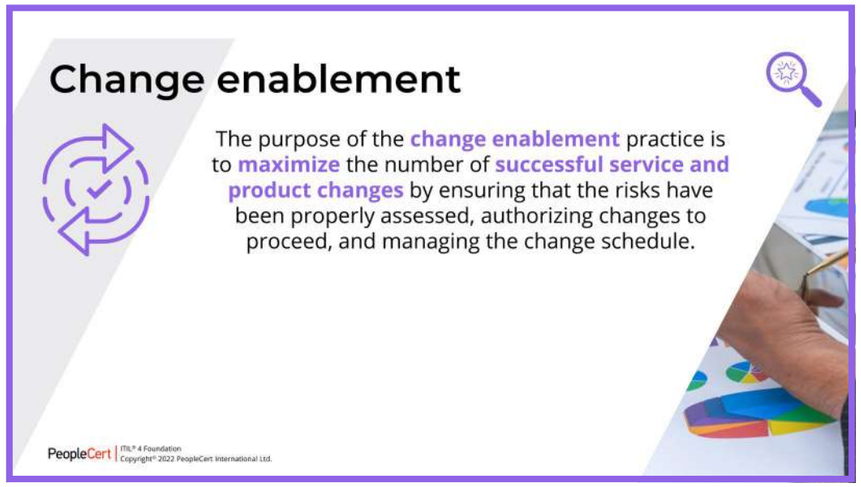


The purpose of the supplier management practice is to ensure that the organization's suppliers and their performances are managed appropriately to support the seamless provision of quality products and services. This includes creating closer, more collaborative relationships with key suppliers to uncover and realize new value and reduce the risk of failure.

The activities that are central to the practice include:

- **Creating a single point of visibility and control to ensure consistency** This should be across all products, services, service components, and procedures provided or operated by internal and external suppliers, including customers acting as suppliers.
- **Maintaining a supplier strategy, policy, and contract management information**
- **Negotiating and agreeing contracts and arrangements** Agreements need to be aligned with the business needs and service targets. Contracts with external suppliers might need to be negotiated or agreed through the legal, procurement, commercial, or contracts functions of the organization. For an internal supplier, there will need to be an internal agreement.
- **Managing relationships and contracts with internal and external suppliers** This should be done when planning, designing, building, orchestrating, transitioning, and operating products and services, working closely with procurement and performance management.
- **Managing supplier performance** Supplier performance should be monitored to ensure that they meet the terms, conditions, and targets of their contracts and agreements, while aiming to increase the value for money obtained from suppliers and the products/services they provide.

Notes



The purpose of the change enablement practice is to maximize the number of successful service and product changes by ensuring that the risks have been properly assessed, authorizing changes to proceed, and managing the change schedule.

The scope of change enablement is defined by each organization. It will typically include all IT infrastructure, applications, documentation, processes, supplier relationships, and anything else that might directly or indirectly impact a product or service.

This is one of the seven practices to be covered in detail in another session.

Notes

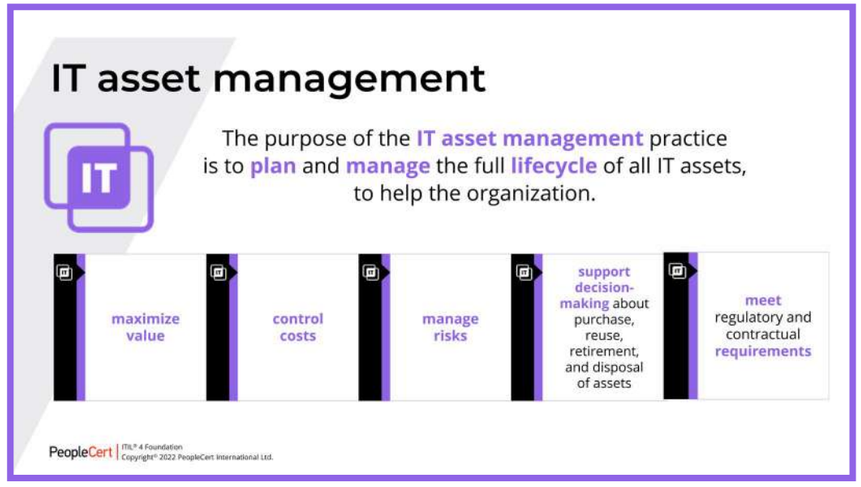


The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible.

Incident management can have an enormous impact on customer and user satisfaction, and on how customers and users perceive the service provider. Every incident should be logged and managed to ensure that it is resolved in a time that meets the expectations of the customer and user.

This is one of the seven practices to be covered in detail in another session.

Notes



The purpose of the IT asset management practice is to plan and manage the full lifecycle of all IT assets, to help the organization:

- maximize value
- control costs
- manage risks
- support decision-making about purchase, reuse, retirement, and disposal of assets
- meet regulatory and contractual requirements.

The scope of IT asset management typically includes all software, hardware, networking, cloud services, and client devices. In some cases, it may also include non-IT assets such as buildings or information where these have a financial value and are required to deliver an IT service.

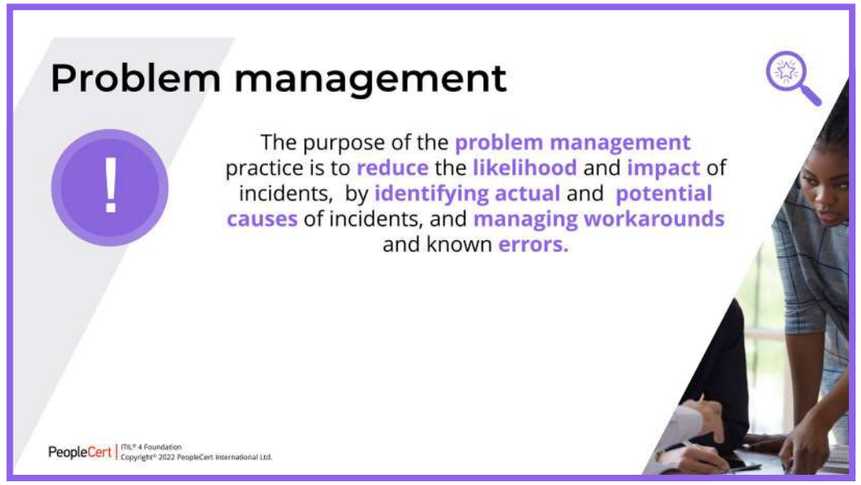
Notes



The purpose of the monitoring and event management practice is to systematically observe services and service components, and record and report selected changes of state identified as events. This practice identifies and prioritizes infrastructure, services, business processes, and information security events. It also establishes the appropriate response to those events, and conditions that indicate potential faults or incidents.

The monitoring and event management practice manages events throughout their lifecycle to prevent, minimize, or eliminate their negative impact on the business.

Notes



The purpose of the problem management practice is to reduce the likelihood and impact of incidents, by identifying actual and potential causes of incidents and managing workarounds and known errors.

Every service has errors, flaws, or vulnerabilities that may cause incidents. These may include errors in any of the four dimensions of service management. Many errors are identified and resolved before a service goes live. However, some remain unidentified or unresolved, and may be a risk to live services. In ITIL, these errors are called problems, and they are addressed by the problem management practice.

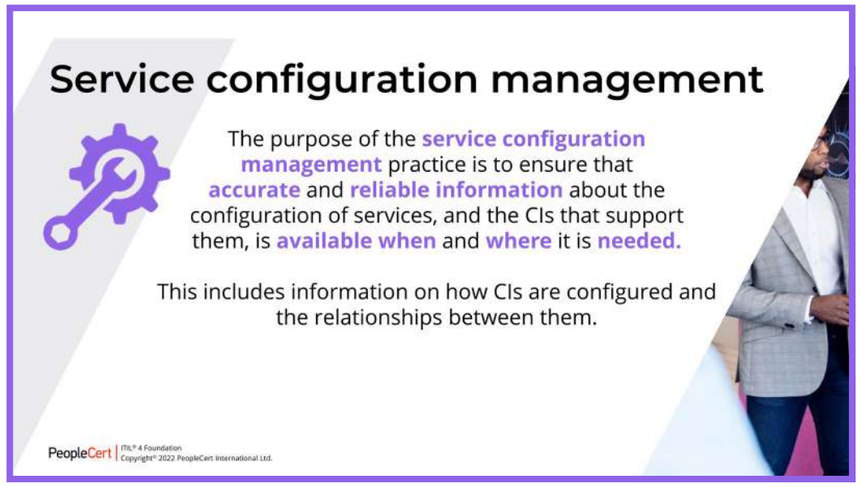
This is one of the seven practices to be covered in detail in another session.

Notes



The purpose of the release management practice is to make new and changed services and features available for use. A release may comprise of many different infrastructure and application components that collaborate to deliver new or changed functionality. It may also include documentation, training (for users or IT staff), updated processes or tools, and any other components that are required. Each component of a release may be developed by the service provider or procured from a third party and integrated by the service provider.

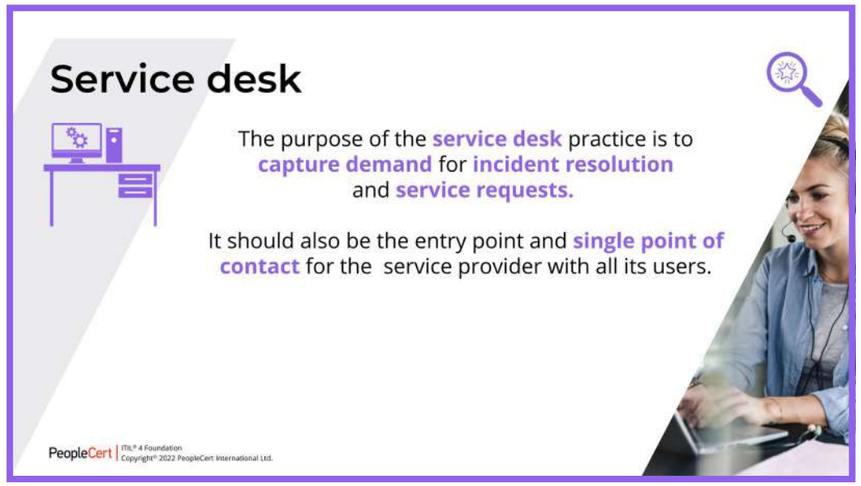
Notes



The purpose of the service configuration management practice is to ensure that accurate and reliable information about the configuration of services, and the CIs that support them, is available when and where it is needed. This includes information on how CIs are configured and the relationships between them.

Service configuration management collects and manages information about a wide variety of CIs, typically including hardware, software, networks, buildings, people, suppliers, and documentation. Services are also treated as CIs, and configuration management helps the organization to understand how the many CIs that contribute to each service work together. Typically, a close working relationship exists between service configuration management and IT asset management.

Notes



The purpose of the service desk practice is to capture demand for incident resolution and service requests. It should also be the entry point and single point of contact for the service provider with all its users.

The service desks provide a clear path for users to report issues, queries, and requests, and have them acknowledged, classified, owned, and actioned. How this practice is managed and delivered may vary from a physical team of people on shift work, to a distributed mix of people connected virtually, or automated technology and bots. The function and value remain the same, regardless of the model.

This is one of the seven practices to be covered in detail in another session.

Notes

Module 5
ITIL 4 Management practices



The purpose of the service level management practice is to set clear business-based targets for service levels, and to ensure that delivery of services is properly assessed, monitored, and managed against these targets.

The service level management provides end-to-end visibility of the organization's services. To achieve this, service level management:

- establishes a shared view of the services and target service levels with customers
- ensures that the organization meets the defined service levels through the collection, analysis, storage, and reporting of the relevant metrics for the identified services
- performs service reviews to ensure that the current set of services continues to meet the needs of the organization and its customers
- captures and reports on service issues, including performance against defined service levels.

This is one of the seven practices to be covered in detail in another session.

Notes



The purpose of the service request management practice is to support the agreed quality of a service by handling all predefined, user-initiated service requests in an effective and user-friendly manner.

The fulfilment of service requests may include changes to services or their components, usually these are standard changes. Service requests are a normal part of service delivery and are not a failure or degradation of service, which are handled as incidents.

This is one of the seven practices to be covered in detail in another session.

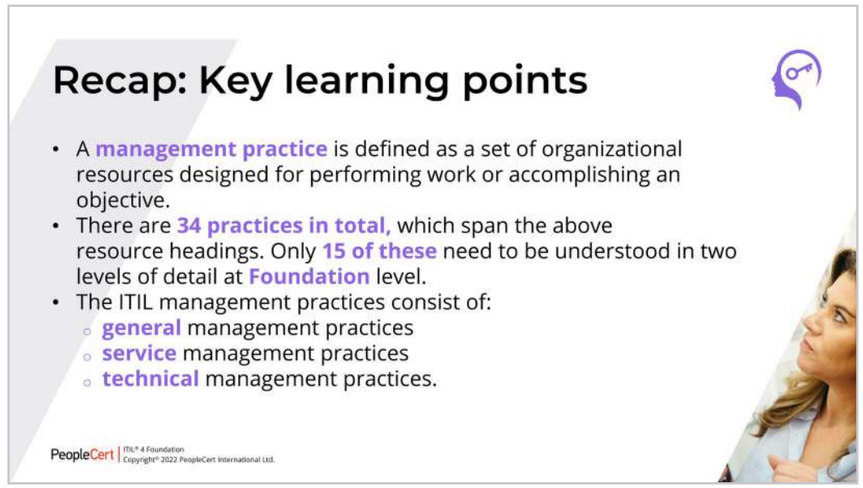
Notes



The purpose of the deployment management practice is to move new or changed hardware, software, documentation, processes, or any other component to live environments. It may also be involved in deploying components to other environments for testing or staging.

Deployment management works closely with release management and change enablement but is a separate practice. In some organizations, the term 'provisioning' is used to describe the deployment of infrastructure, and deployment is only used to mean software deployment, but in this case the term deployment is used to mean both.

Notes

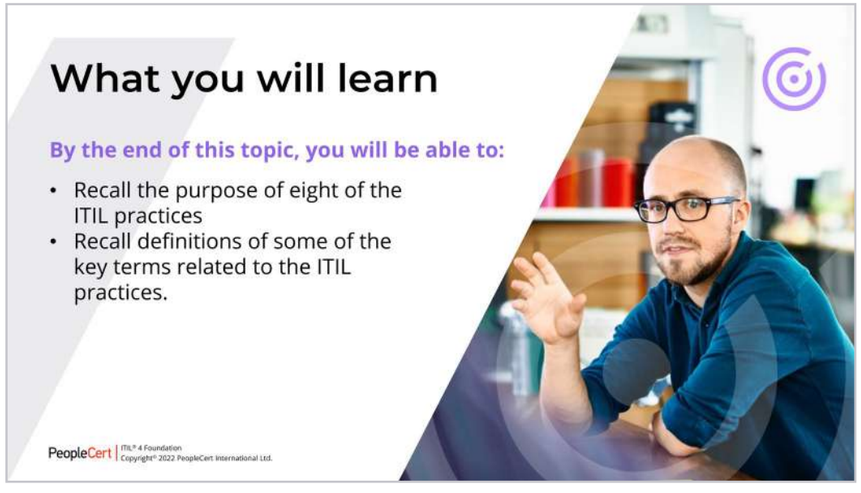


This slide outlines the key learning points that were covered in this topic.

Notes

5.2 Overview of eight ITIL practices





This slide outlines the key learning points that will be covered in this topic.



This session will provide an overview of the eight practices that are shown on the slide. These practices require only an awareness of their purpose and definition at foundation level. Please note: these practices must synergize for optimal success.

Module 5
ITIL 4 Management practices

Notes

Notes



The necessary security is established by means of policies, processes, behaviours, risk management, and controls, which must maintain a balance between:

- **Prevention** Ensuring that security incidents do not occur.
- **Detection** Rapidly and reliably detecting incidents that cannot be prevented.
- **Correction** Recovering from incidents after they are detected.

It is also important to achieve a balance between protecting the organization from harm and allowing it to innovate. Information security controls that are too restrictive may do more harm than good or may be circumvented by people trying to do work more easily. Information security controls should consider all aspects of the organization and align with its risk appetite.

Consider what level of contribution you think information security management has to the entire service value chain (SVC).

The following example acts as a reminder of the four-dimensional nature of the ITIL practices: Security practitioners always create layers of security, so that if one fails, another is waiting. A defensive in-depth approach to security does the job of giving you time to deal with a serious security attack before it becomes a breach. Consider an organization that spends hundreds of thousands of dollars on security measures, but does not invest in training the people. So, there are many security tools in place, which can all be undone by a single user who falls prey to a phishing attack and hands over their username and password to an outside person, who then has no need to deal with any of the hundreds of thousands of dollars' worth of security measures.

Notes



Axle Car Hire's services use a lot of sensitive data about their customers. It is important that this data is kept secure. The following slides outline how Axle keeps their information secure.



Module 5
ITIL 4 Management practices

Notes





Notes



Module 5
ITIL 4 Management practices

Notes

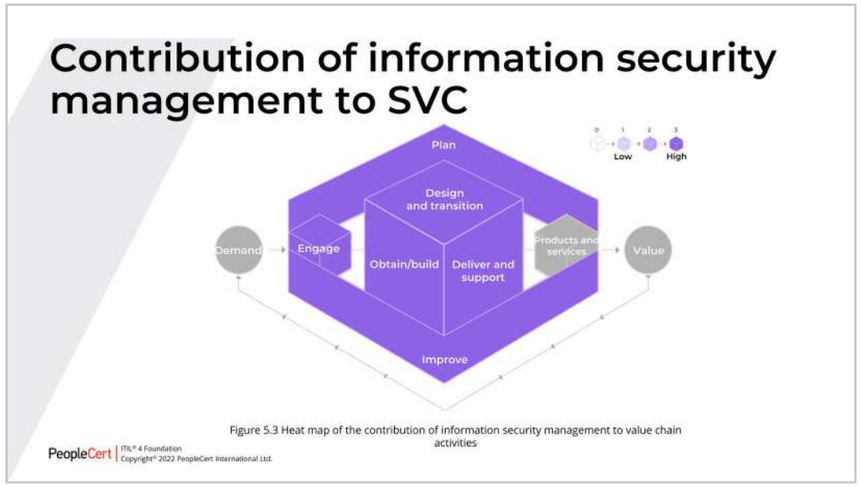


Figure 5.3 Heat map of the contribution of information security management to value chain activities

Heat map figures are included for each of the eight management practices in this topic. The heat maps are inherently subjective and it is important to note that the values may vary between organizations.

This heat map shows the contribution of relationship management to the service value chain, with the practice being involved in all value chain activities:

- **Plan** Information security must be considered in all improvement value chain activity and must be built into every practice and service.
- **Improve** Information security must be considered in all improvement value chain activity to ensure that vulnerabilities are not introduced when making improvements.
- **Engage** Information security requirements for new and changed services must be understood and captured. All levels of engagement, from operational to strategic, must support information security and encourage the behaviours needed. All stakeholders must contribute to information security, including customers, users, suppliers, etc.
- **Design and transition** Information security must be considered throughout this value chain activity, with effective controls being designed and transitioned into operation. The design and transition of all services must consider information security aspects as well as all other utility and warranty requirements.
- **Obtain/build** Information security must be built into all components, based on the risk analysis, policies, procedures, and controls defined by information security management. This applies whether the components are built internally or procured from suppliers.
- **Deliver and support** Detection and correction of information security incidents must be an integral part of this value chain activity.

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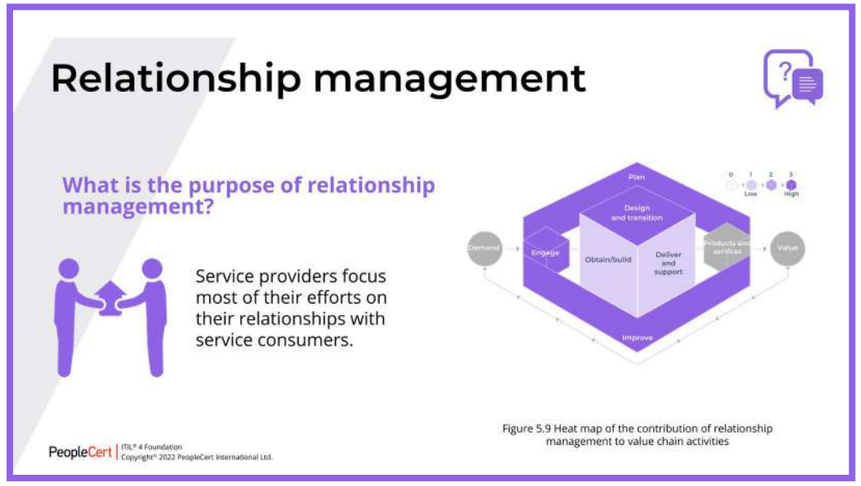


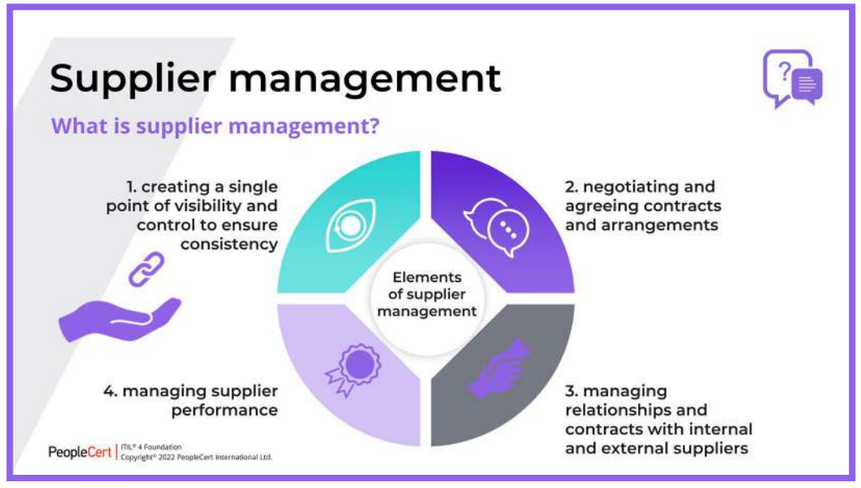
Figure 5.9 Heat map of the contribution of relationship management to value chain activities

Regarding relationship management, there is a need to establish/maintain relationships between the organization and its stakeholders. Service providers quite naturally focus most of their efforts on their relationships with service consumers (sponsors, customers, and users).

Figure 5.9 shows the contribution of relationship management to the service value chain, with the practice being involved in all value chain activities:

- **Plan** Relationship management provides information on the requirements and expectations of internal and external customers. It also assists with strategic assessment and prioritization across portfolios, as well as evaluating current and future market spaces, which are essential aspects of planning.
- **Improve** Relationship management seeks to harmonize and synergize different organizational relationships with internal and external customers to realize targeted benefits through continual improvement.
- **Engage** Relationship management is the practice responsible for engaging with internal and external customers to understand their requirements and priorities.
- **Design and transition** Relationship management plays a key role in coordinating feedback from internal and external customers as part of design. It also ensures that inconvenience and adverse impacts to customers during transition are prevented or minimized.
- **Obtain/build** Relationship management provides the customer requirements and priorities to help select products, services, or service components to be obtained or built.
- **Deliver and support** Relationship management is responsible for ensuring that a high level of customer satisfaction and a constructive relationship between the organization and its customers is established and maintained.

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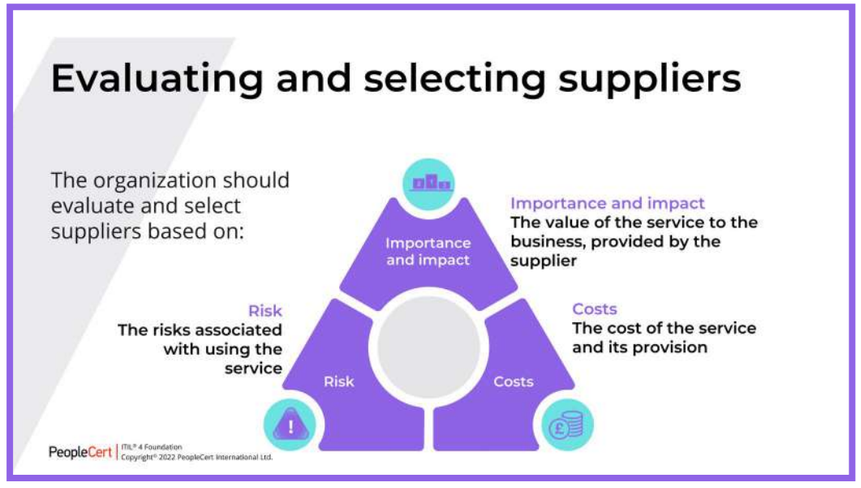
The central activities of the practice are:

- creating a single point of visibility and control to ensure consistency
- negotiating and agreeing contracts and arrangements
- managing relationships and contracts with internal and external suppliers
- managing supplier performance.

There are different types of supplier relationships between an organization and its suppliers that need to be considered as part of the organization's sourcing strategy. These include:

- insourcing
- outsourcing
- single source or partnership
- multi-sourcing.

Notes



Organizations should evaluate and select suppliers based on:

- **Importance and impact** The value of the service to the business, provided by the supplier.
- **Risk** The risks associated with using the service, as well as any risks associated with the supplier organization itself.
- **Costs** The cost of the service and its provision.

Other important factors in evaluating and selecting suppliers include the willingness or feasibility of a supplier to customize its offerings or work cooperatively in a multi-supplier environment; the level of influence of the organization or service integrator on the supplier's performance; and the degree of dependence of one supplier on other suppliers.

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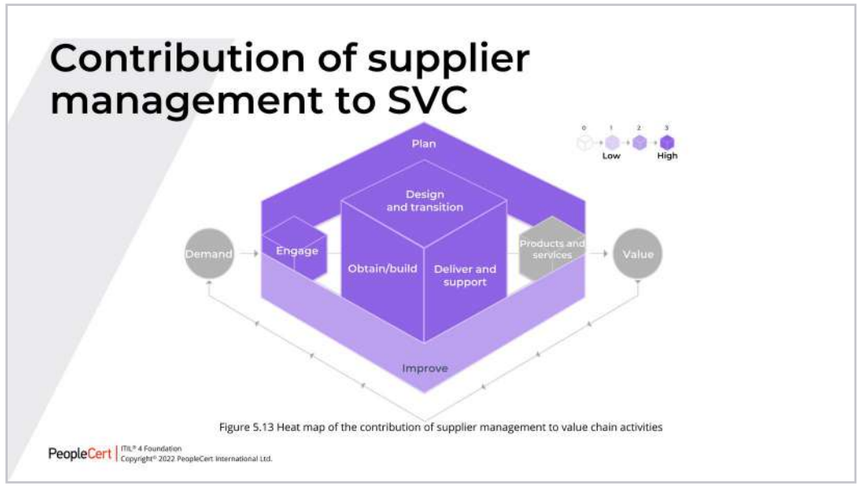


Figure 5.13 Heat map of the contribution of supplier management to value chain activities

Figure 5.13 shows the contribution of supplier management to the service value chain, with the practice being involved in all value chain activities:

- **Plan** Supplier management provides the organization's approved sourcing strategy and plan.
- **Improve** This practice identifies opportunities for improvement with existing suppliers, is involved in the selection of new suppliers, and provides ongoing supplier performance management.
- **Engage** Supplier management is responsible for engaging with all suppliers and for the evaluation and selection of suppliers; for negotiating and agreeing contracts and agreements; and for ongoing management of supplier relationships.
- **Design and transition** Supplier management is responsible for defining requirements for contracts and agreements related to new or changed products or services, in alignment with the organization's needs and service targets.
- **Obtain/build** Supplier management supports the procurement or obtaining of products, services, and service components from third parties.
- **Deliver and support** Supplier performance for live services is managed by this practice to ensure that suppliers meet the terms, conditions, and targets of their contracts and agreements.

Can you think of any personal examples of supplier management from your own experience?

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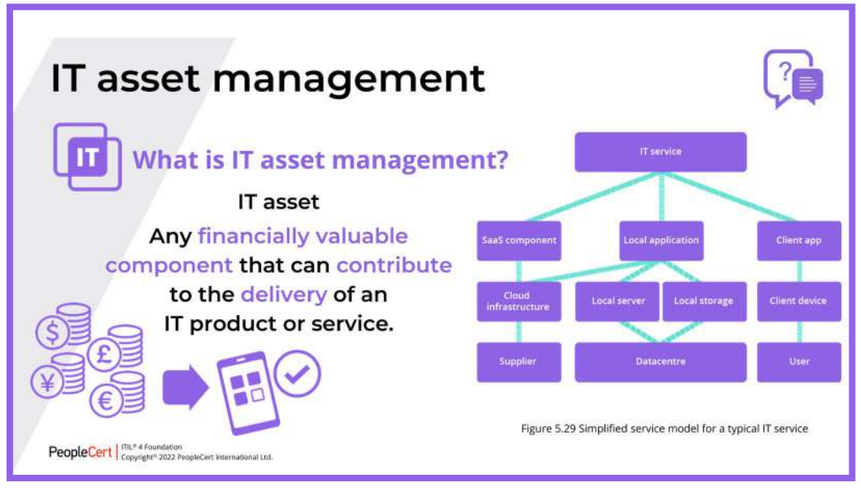


Figure 5.29 Simplified service model for a typical IT service

An IT asset is defined as any financially valuable component that can contribute to the delivery of an IT product or service. The scope of IT asset management typically includes all software, hardware, networking, cloud services, and client devices. In some cases, it may also include non-IT assets such as buildings or information where these have a financial value and are required to deliver an IT service.

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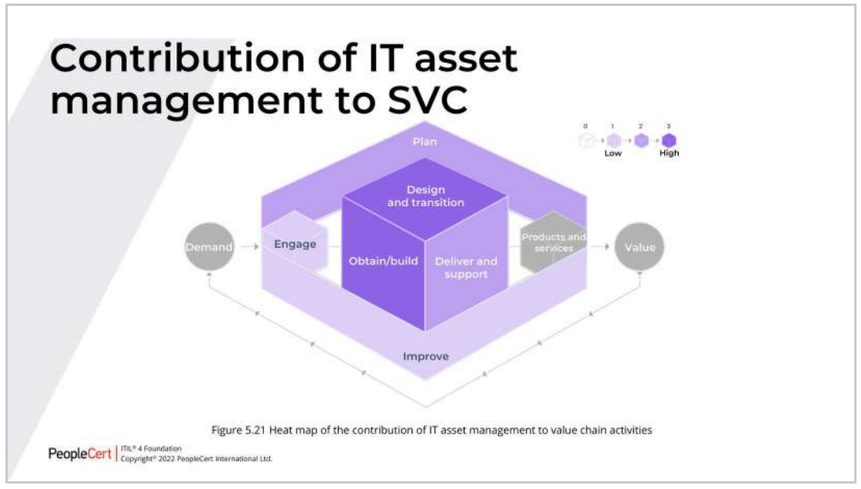
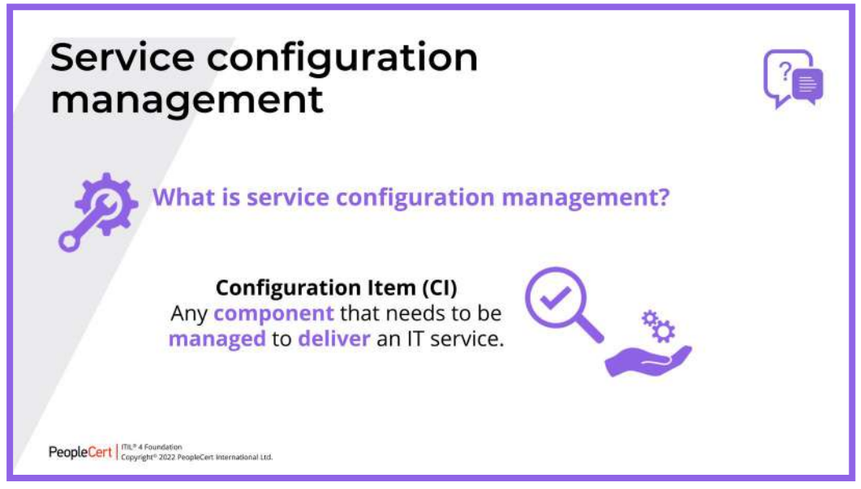


Figure 5.21 Heat map of the contribution of IT asset management to value chain activities

Figure 5.21 shows the contribution of IT asset management to the service value chain, with the practice being applied mainly to the design and transition, and obtain/build value chain activities:

- **Plan** Most policies and guidance for IT asset management comes from the service financial management practice. Some asset management policies are driven by governance, and some are driven by other practices, such as information security management. IT asset management can be considered a strategic practice that helps the organization to understand and manage cost and value.
- **Improve** This value chain activity must consider the impact on IT assets, and some improvements will directly involve IT asset management in helping to understand and manage costs.
- **Engage** There may be some demand for IT asset management from stakeholders. For example, a user may report a lost or stolen mobile phone, or a customer may require reports on the value of IT assets.
- **Design and transition** This value chain activity changes the status of IT assets and so drives most IT asset management activity.
- **Obtain/build** IT asset management supports asset procurement to ensure that assets are traceable from the beginning of their lifecycle.
- **Deliver and support** IT asset management helps to locate IT assets, trace their movements, and control their status in the organization.

Notes



The definition of a configuration item (CI) is any component that needs to be managed to deliver an IT service. Service configuration management collects and manages information about a wide variety of CIs, typically including hardware, software, networks, buildings, people, suppliers, and documentation. Services are also treated as CIs, and configuration management helps the organization to understand how the many CIs that contribute to each service collaborate.

Some items can be both CIs and IT assets, and some items are specifically just an asset or just a CI. There is no single rule as to how these should be defined. Whether something is considered to be an IT asset or a CI is not an inherent property of the item. Who makes that distinction? Not ITIL, but the customer, making it a somewhat subjective conversation. A chair is an asset, but isn't really ever considered to be a CI, whereas a laptop will always be a CI. But what about a server rack? Is it an asset? There might be a tag on it, but there will certainly be a listing that we own it. We might think that the rack is just a lockable storage unit and therefore only an asset. If, however, you have responsibility for what goes into the rack, if you have a design document and a configuration of how that rack is supposed to be, then it is a CI. Neither of these views is wrong, and decisions must be made over what falls into which category.

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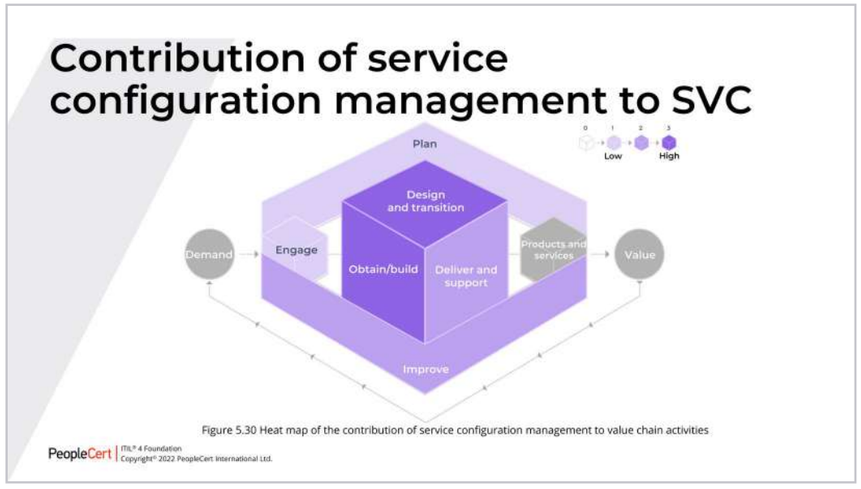
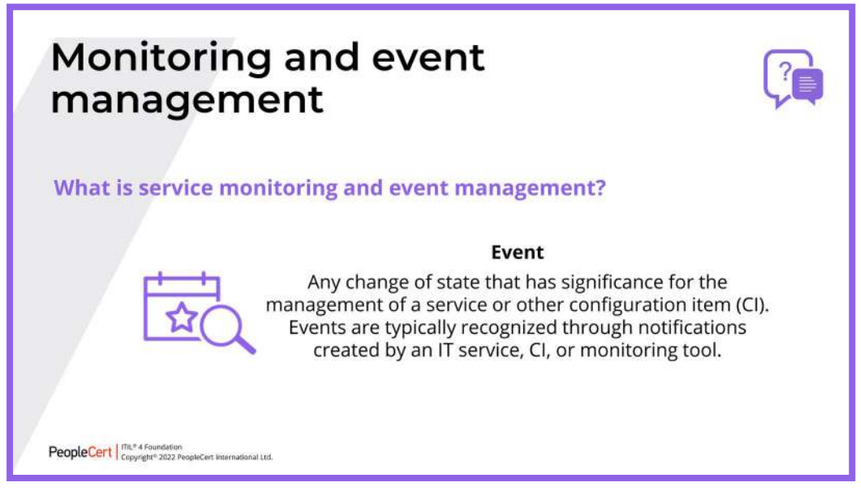


Figure 5.30 Heat map of the contribution of service configuration management to value chain activities

Figure 5.30 shows the contribution of configuration management to the service value chain, with the practice being involved in all value chain activities:

- **Plan** Configuration management is used for planning new or changed services.
- **Improve** Configuration management, like every other aspect of service management, should be subject to measurement and continual improvement. Since the value of configuration management typically comes from how it facilitates other practices, it is important to understand how these practices use configuration information and then identify how this can be improved.
- **Engage** Some stakeholders (partners and suppliers, consumers, regulators, and so on) may require and use configuration information, or provide their configuration information to the organization.
- **Design and transition** Configuration management documents how assets collaborate to create a service. This information is used to support many value chain activities and is updated as part of the transition activity.
- **Obtain/build** Configuration records may be created during this value chain activity, describing new or changed services and components. Sometimes, configuration records are used to create the code or artefact that is being built.
- **Deliver and support** Information on configuration items is essential to support service restoration. Configuration information is used to support activities of the incident management and problem management practices.

Notes



An event is any change of state that has significance for the management of a service or other configuration item (CI). Events are typically recognized through notifications created by an IT service, CI, or monitoring tool. The monitoring and event management practice manages events throughout their lifecycle to prevent, minimize, or eliminate their negative impact on the business.

The monitoring part of the practice focuses on the systematic observation of services and the CIs that underpin services to detect conditions of potential significance. The event management part focuses on recording and managing those monitored changes of state that are defined by the organization as an event, determining their significance, and identifying and initiating the correct control action to manage them.

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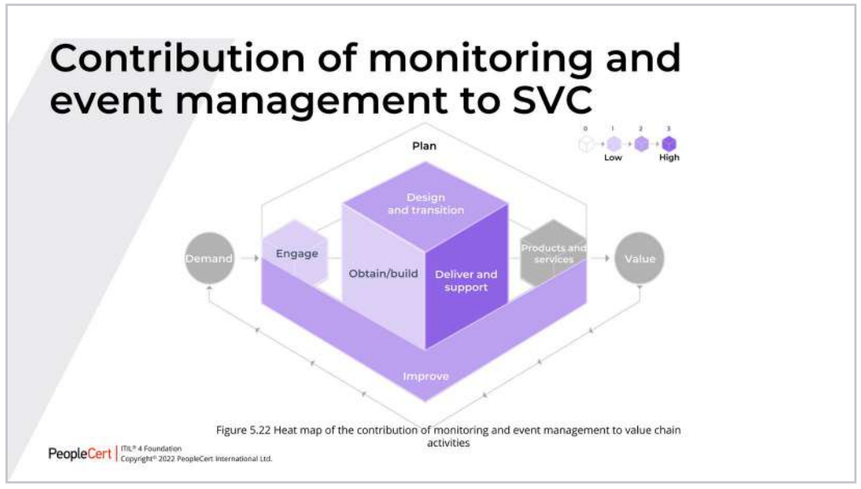


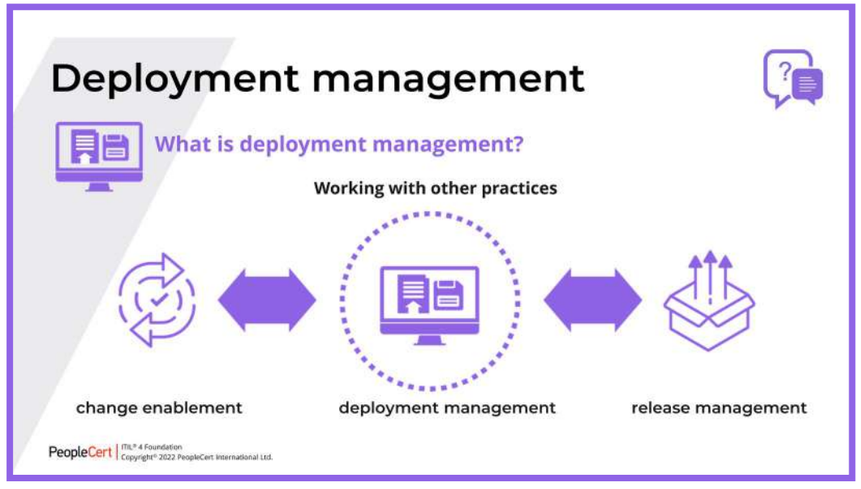
Figure 5.22 Heat map of the contribution of monitoring and event management to value chain activities

Figure 5.22 shows the contribution of monitoring and event management to the service value chain, with the practice being involved in all value chain activities except plan:

- **Improve** The monitoring and event management practice is essential to the close observation of the environment to evaluate and proactively improve its health and stability.
- **Engage** Monitoring and event management may be the source of internal engagement for action.
- **Design and transition** Monitoring data informs design decisions. Monitoring is an essential component of transition; it provides information about the transition success in all environments.
- **Obtain/build** Monitoring and event management supports development environments, ensuring their transparency and manageability.
- **Deliver and support** The practice guides how the organization manages internal support of identified events, initiating other practices as appropriate.

So how much monitoring is enough? IT professionals love to make the most out of the resources they're given. You might install an open source system to monitor server processor, memory utilization, routers and so on. If you have not created a threshold for when you want notifications, you might get over 600 emails from your system warning you about things which are actually not a problem for your system. If you do not fix that threshold issue, your analysts will very soon create inbox rules to put the notifications in a separate inbox to see later, and they will never be looked at. Later, a server might fail, and you might miss it because the signal was lost in the noise of 600 to 800 notifications a day. In fact, you might have missed all the warning signs during the build-up to the failure for the same way. Your monitoring solution needs to warn you about things which actually matter, rather than about every possible thing. You need to identify how much monitoring will generate the amount of value that you need.

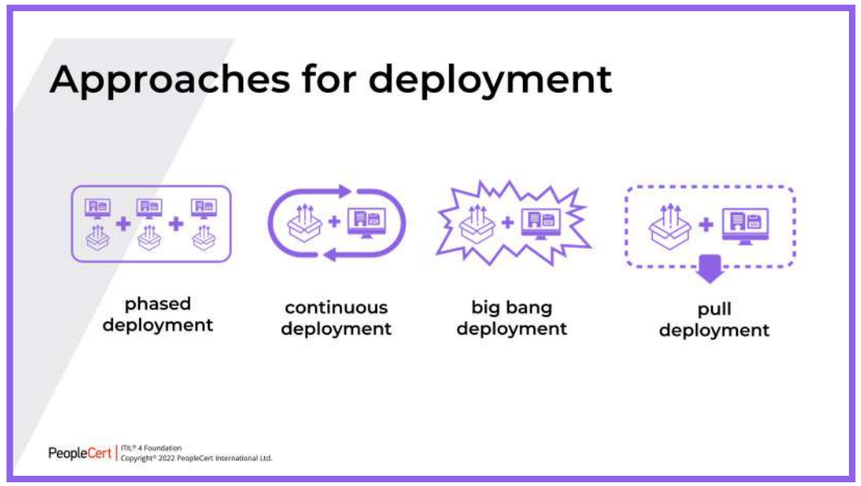
Notes



Deployment management works closely with release management and change enablement but is a separate practice. In some organizations, the term 'provisioning' is used to describe the deployment of infrastructure, and deployment is only used to mean software deployment, but in this case the term deployment is used to mean both. We deploy to an environment, whereas we release things into the hands of users. Therefore, we deploy all of the elements of the service first, and then we release the service into the hands of the users.

In the waterfall method, we deploy everything in one big, heavy lift of deployment and then release everything at once. If anything goes wrong, or isn't quite right, the entire deployment or release is stopped. Agile breaks these services and provisions down and allows us to deploy each part whenever it is ready, even if that's before the other parts. Also, we do not have to release all in one shot; we can run a small test with some users, which could even happen in parallel with full releases of other parts, while deployment of some of the other services is still happening. We would still prefer to keep that window of time as short as possible, but we have the flexibility to do it in a way that works for our resources, without bringing the project to a halt.

Notes



There are several distinct approaches that can be used for deployment. Many organizations use a combination of these approaches, depending on their specific services and requirements as well as the release sizes, types, and impact:

- **Phased deployment** The new or changed components are deployed to a section of the production environment at any time, for example to users in one office or one country. This operation is repeated as many times as needed until the deployment is complete.
- **Continuous delivery** Components are integrated, tested, and deployed when they are needed, providing frequent opportunities for customer feedback loops.
- **Big bang deployment** New or changed components are deployed to all targets at the same time. This approach is sometimes needed when dependencies prevent the simultaneous use of both the old and new components. For example, there could be a database schema change that is not compatible with previous versions of some components.
- **Pull deployment** New or changed software is made available in a controlled repository, and users download the software to client devices when they choose. This allows users to control the timing of updates and can be integrated with service request management to enable users to request software only when it is needed.

Notes



As Axle Car Hire releases new functionality for their booking app, they need to consider how they deploy these changes. The following slides outline how they go about this.



Notes





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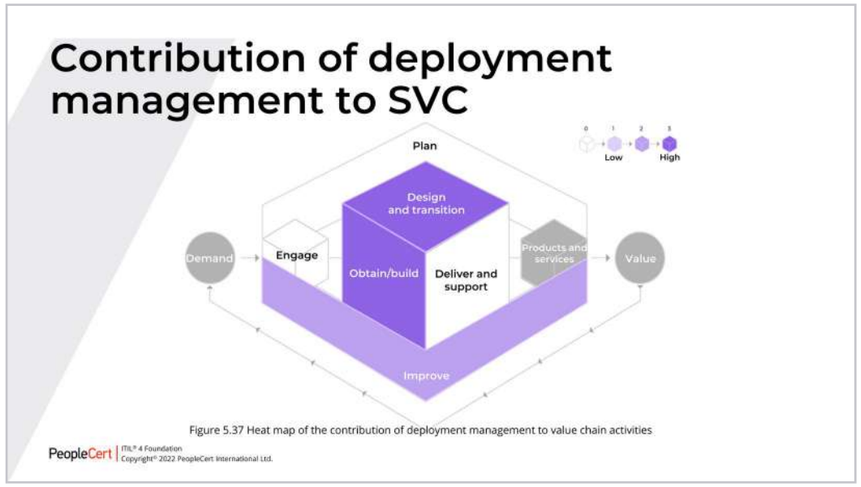


Figure 5.37 Heat map of the contribution of deployment management to value chain activities

Figure 5.37 shows the contribution of deployment management to the service value chain, with the practice applied mainly to the design and transition, and obtain/build value chain activities, but also to the improve activity:

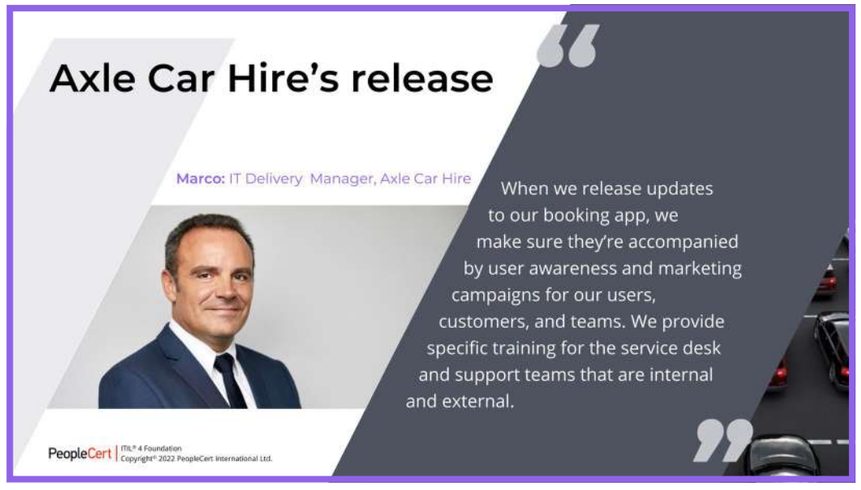
- **Improve** Some improvements may require components to be deployed before they can be delivered, and these should be planned and managed in the same way as any other deployment.
- **Design and transition** Deployment management moves new and changed components to live environments, so it is a vital element of this value chain activity.
- **Obtain/build** Changes can be deployed incrementally as part of this value chain activity. This is especially common in DevOps environments using a complete automated toolchain for continuous integration, delivery, and deployment.

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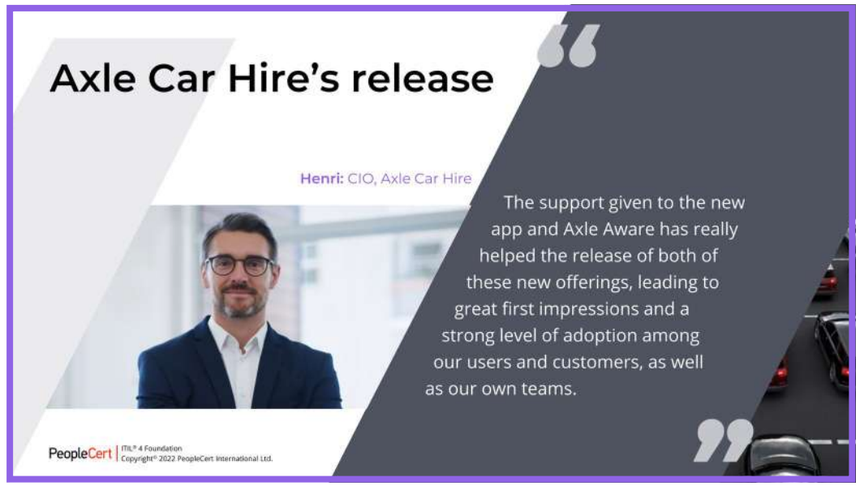


The definition of a release is a version of a service or other CI, or a collection of CIs, which is made available for use. A release may comprise of many different infrastructure and application components that collaborate to deliver new or changed functionality. It may also include documentation, training (for users or IT staff), updated processes or tools, and any other components that are required.





As Axle Car Hire introduces new updates to their booking app, they need to ensure that these releases are properly managed. The following slides outline how they go about this.



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ITIL 4 Management practices

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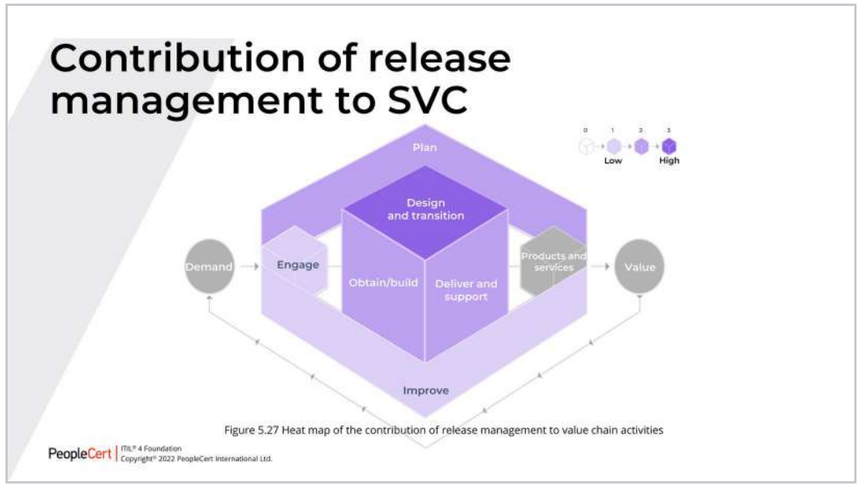
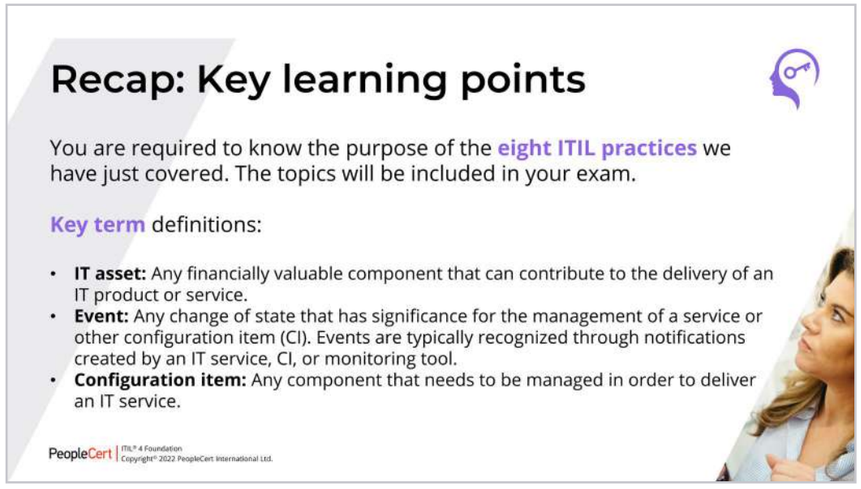


Figure 5.27 shows the contribution of release management to the service value chain, with the practice being involved in all value chain activities:

- **Plan** Policies, guidance, and timelines for releases are driven by the organizational strategy and service portfolio. The size, scope, and content of each release should be planned and managed.
- **Improve** New or changed releases may be required to deliver improvements, and these should be planned and managed in the same way as any other release.
- **Engage** The content and cadence of releases must be designed to match the needs and expectations of customers and users.
- **Design and transition** Release management ensures that new or changed services are made available to customers in a controlled way.
- **Obtain/build** Changes to components are normally included in a release and delivered in a controlled way.
- **Deliver and support** Releases may impact on delivery and support. Training, documentation, release notes, known errors, user guides, support scripts, and so on are provided by this practice to facilitate service restoration.

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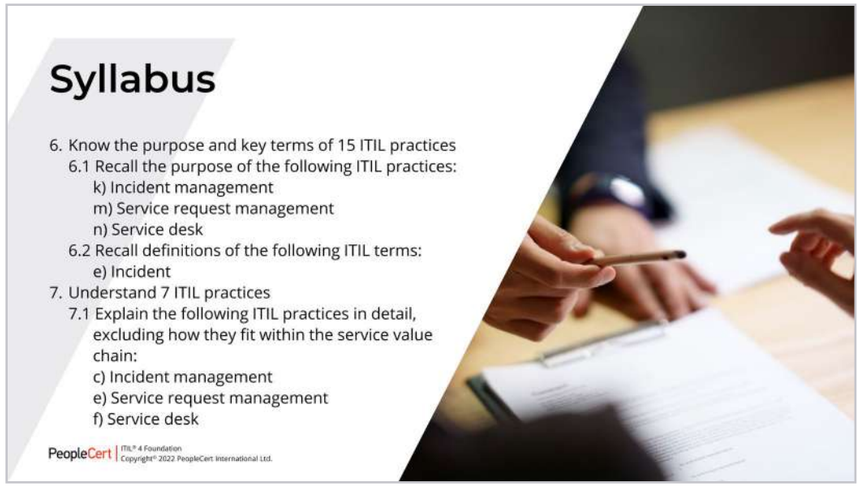


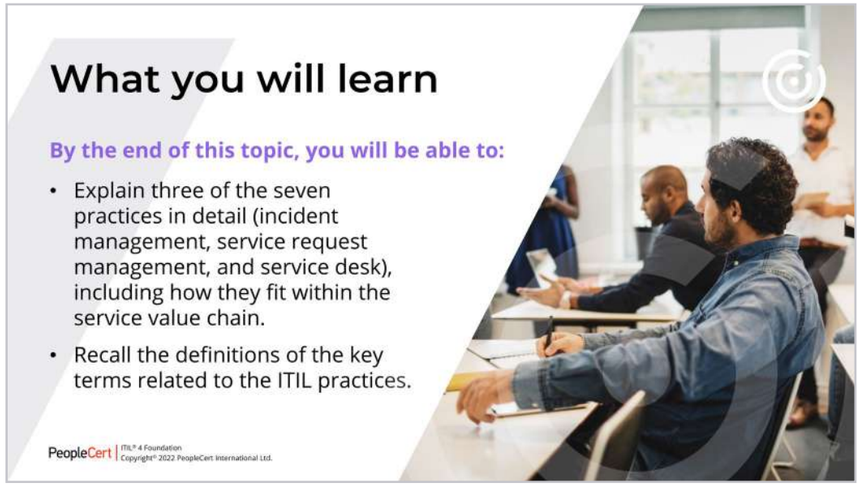
This slide outlines the key learning points that were covered in this topic.

Module 5
ITIL 4 Management practices

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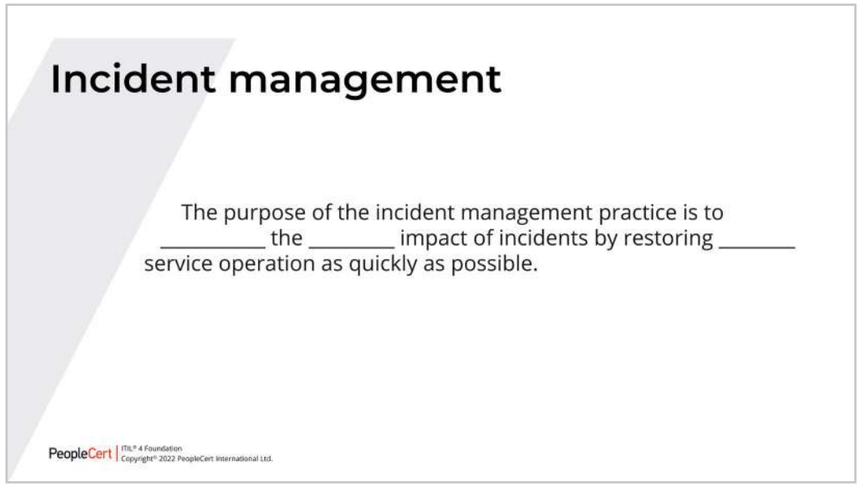
5.3 Key management practices – Part 1





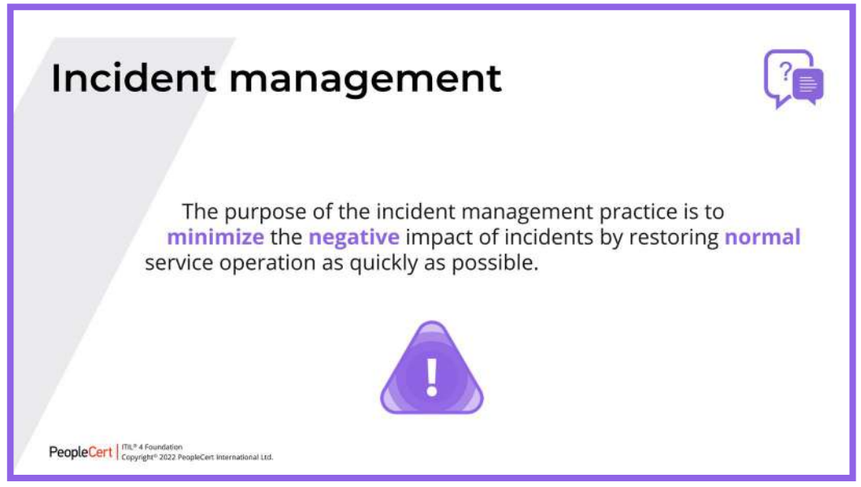
This slide outlines the key learning points that will be covered in this topic.

Notes



See if you can recall the purpose of the incident management practice by filling in the blank words.

Notes



The purpose of the incident management practice is to minimize the negative impact of incidents by restoring normal service operation as quickly as possible.

Incident management can have an enormous impact on customer and user satisfaction, and on how customers and users perceive the service provider. Every incident should be logged and managed to ensure that it is resolved in a time that meets the expectations of the customer and user. Target resolution times are agreed, documented, and communicated to ensure that expectations are realistic. Incidents are prioritized based on an agreed classification to ensure that incidents with the highest business impact are resolved first.



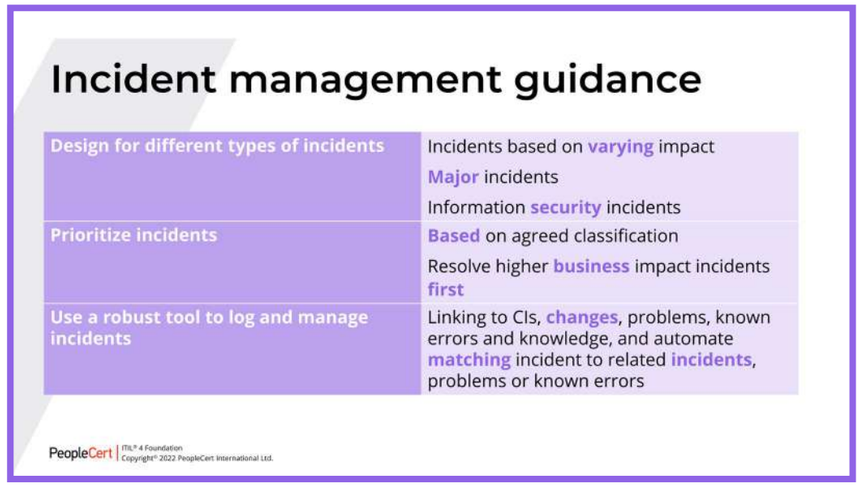
An incident is an unplanned interruption to a service or a reduction in the quality of a service.

Organizations should design their incident management practice to provide appropriate management and resource allocation to different types of incident. Incidents with a low impact must be managed efficiently to ensure that they do not consume too many resources. Incidents with a larger impact may require more resources and more complex management. There are usually separate processes for managing major incidents, and for managing information security incidents.

Notes

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Notes



The incident management tool and process must be tailored for different types of incidents, as, for example a major incident must have a different urgency and handling process from a printer jam. When it comes to prioritization, it is vital to have clear, agreed, and data-driven prioritization algorithms. Your ITSM tool should allow you to 'walk the chain' among related CIs, changes, problems, known errors and knowledge articles. It should also provide automated incident matching capabilities. Take a moment to consider your tools and processes. Do you see this advice at work within them?

Notes



Incident management tools should provide:

- information about incidents
- incident records.

Tools should also provide links to related:

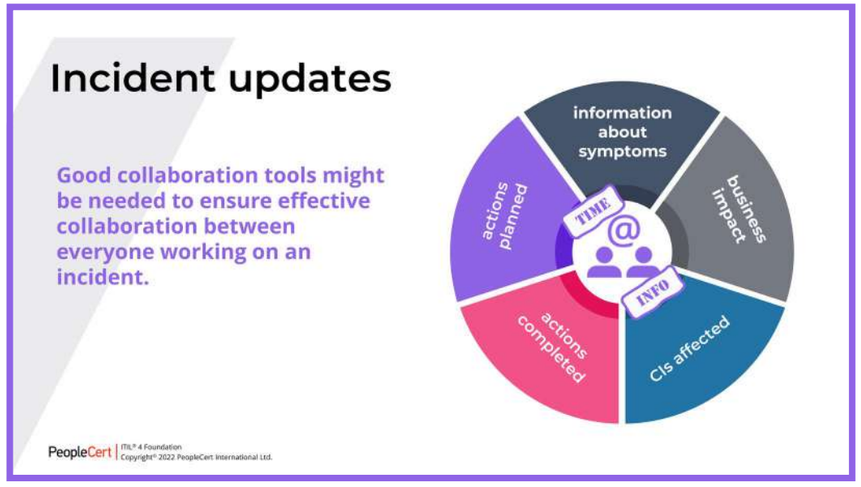
- CIs
- changes
- problems
- known errors.

Modern tools can also:

- provide automated matching of incidents
- provide intelligent analysis of incident data
- generate recommendations to help with future incidents.

We have traditionally needed wisdom in order to identify trends in incident management. Now, AI systems will suggest when you are looking at an incident, that there could be closed incidents that seem to have similar features. Great people can extend the practice and spot trends, and increasingly, so can automated tools.

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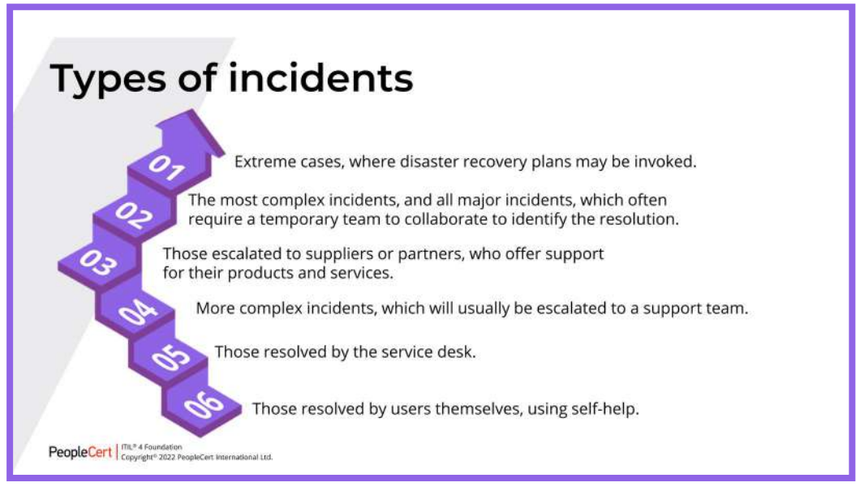


It is important that people working on an incident provide good quality updates in a timely fashion. As shown in the figure, these updates should include:

- information about symptoms
- business impact
- CIs affected
- actions completed
- actions planned.

Each of these should have a timestamp and information about the people involved so that the people involved or interested can be kept informed. There may also be a need for good collaboration tools so that people working on an incident can collaborate effectively.

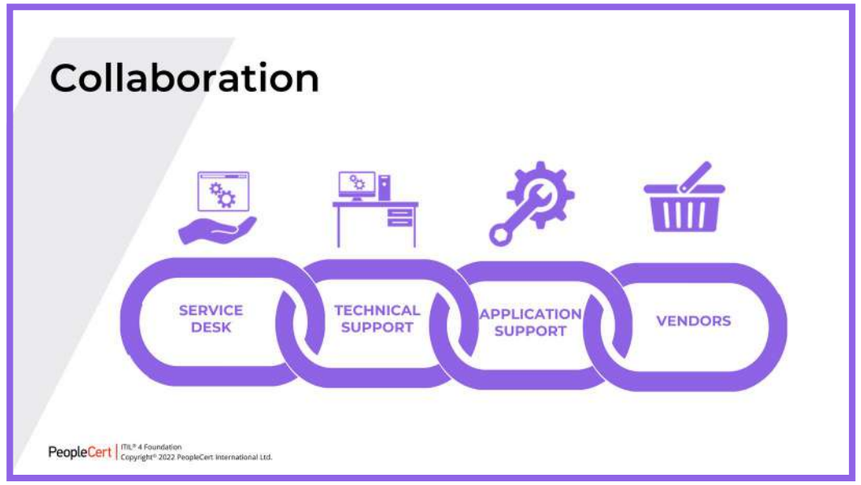
Notes



There are many different types of incidents. Incidents may be diagnosed and resolved by people in many different groups, depending on the complexity of the issue or the incident type. All of these groups need to understand the incident management process, and how their contribution to this helps to manage the value, outcomes, costs, and risks of the services provided:

- Some incidents will be resolved by the users themselves, using self-help. Use of specific self-help records should be captured for use in measurement and improvement activities (this is also referred to as 'tier 0').
- Some incidents will be resolved by the service desk (tier 1). Incident resolution to tier 0 or tier 1 is also known as the 'shift left' approach.
- More complex incidents will usually be escalated to a support team for resolution. Typically, the routing is based on the incident category, which should help to identify the correct team.
- Incidents can be escalated to suppliers or partners, who offer support for their products and services.
- The most complex incidents, and all major incidents, often require a temporary team to collaborate to identify the resolution. This team may include representatives of many stakeholders, including the service provider, suppliers, users, and so on.
- In some extreme cases, disaster recovery plans may be invoked to resolve an incident. Disaster recovery is described in the service continuity management practice.

Notes



Effective incident management often requires a high level of collaboration within and between teams. These teams may include:

- service desk
- technical support
- application support
- vendors.

Collaboration can facilitate information sharing and learning, as well as helping to solve the incident more efficiently and effectively.



'Swarming' is an incident management technique where many stakeholders working together on an incident initially until it becomes clear which is best placed to continue, and which can move on to other tasks. Another related technique is Incident Command System for IT, which allows self-similar, self-organizing teams to scale up and down quickly, as in firefighters fighting wildfires; both techniques are most often applied in major incident handling situations.

Notes

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Third-party products and services that are used as components of a service require support agreements, which align the obligations of the supplier with the commitments made by the service provider to customers.

Incident management may require frequent interaction with these suppliers, and routine management of this aspect of supplier contracts is often part of the incident management practice. A supplier can also act as a service desk, logging and managing all incidents and escalating them to subject matter experts or other parties as required.

Notes

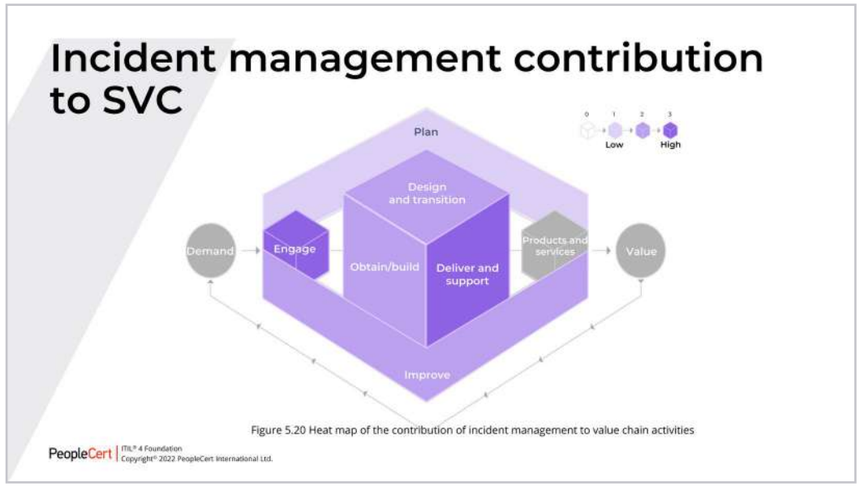


Figure 5.20 Heat map of the contribution of incident management to value chain activities

Figure 5.20 shows the contribution of incident management to the service value chain, with the practice being applied mainly to the engage, and deliver and support value chain activities. Except for plan, other activities may use information about incidents to help set priorities:

- **Plan** Incident records are a key input to planning activities at a tactical and operational level.
- **Improve** Incident records are a key input to improvement activities and are prioritized both in terms of incident frequency and severity.
- **Engage** Incidents are visible to users, and significant incidents are also visible to customers. Good incident management requires regular communication to understand the issues, set expectations, provide status updates, and agree that the issue has been resolved, so the incident can be closed.
- **Design and transition** Incidents may occur in test environments, as well as during service release and deployment. The practice ensures these incidents are resolved in a timely and controlled manner.
- **Obtain/build** Incidents may occur in development environments. Incident management practice ensures these incidents are resolved in a timely and controlled manner.
- **Deliver and support** Incident management makes a significant contribution to support. This value chain activity includes resolving incidents and problems.

Notes



Axle Car Hire faces many potential IT and non-IT incidents. It is important that these are handled correctly. The following slides outline how they go about this.



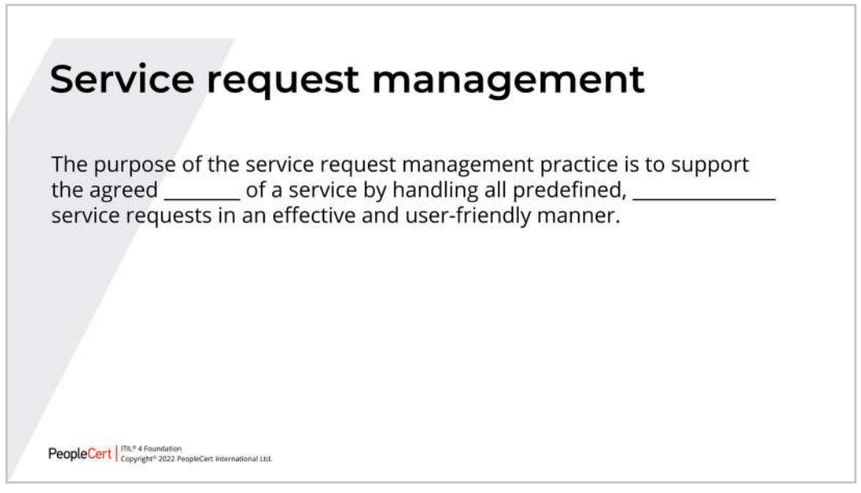
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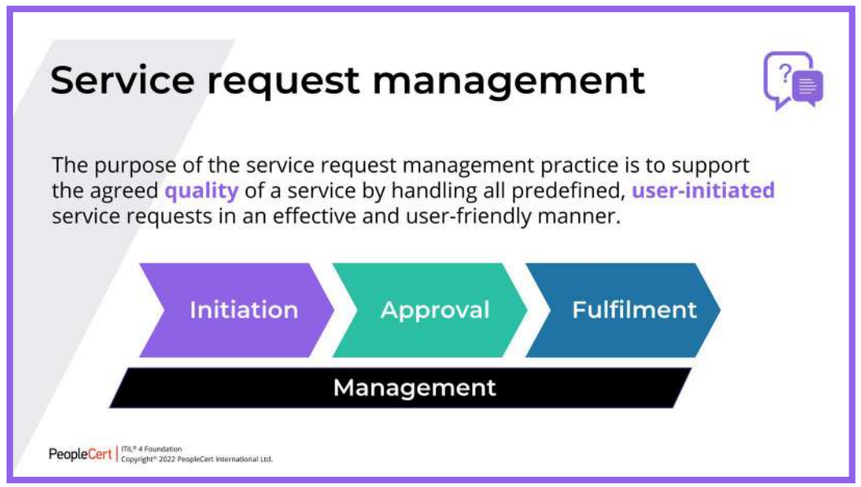
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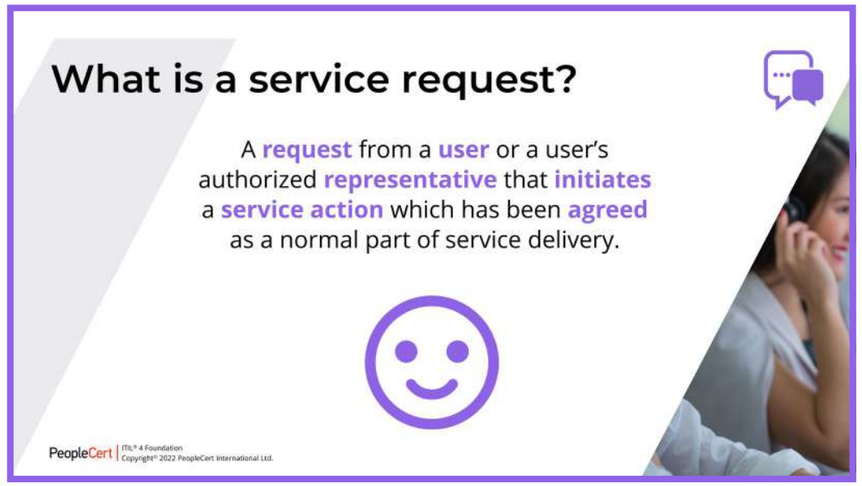
See if you can recall the purpose of the service request management practice by filling in the blank words.

Notes



The purpose of the service request management practice is to support the agreed quality of a service by handling all predefined, user-initiated service requests in an effective and user-friendly manner.

Notes



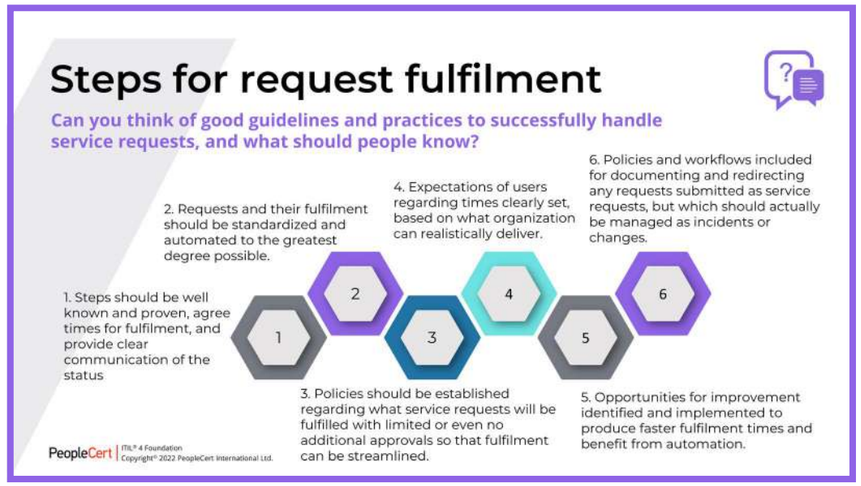
The definition of a service request is a request from a user or a user's authorized representative that initiates a service action which has been agreed as a normal part of service delivery.

Can you think of any examples of request types based on your knowledge and experience?

Each service request may include one or more of the following:

- a request for a service delivery action (for example, providing a report or replacing a toner cartridge)
- a request for information (for example, how to create a document or what the hours of the office are)
- a request for provision of a resource or service (for example, providing a phone or laptop to a user, or providing a virtual server for a development team)
- a request for access to a resource or service (for example, providing access to a file or folder)
- feedback, compliments, and complaints (for example, complaints about a new interface or compliments to a support team).

Notes



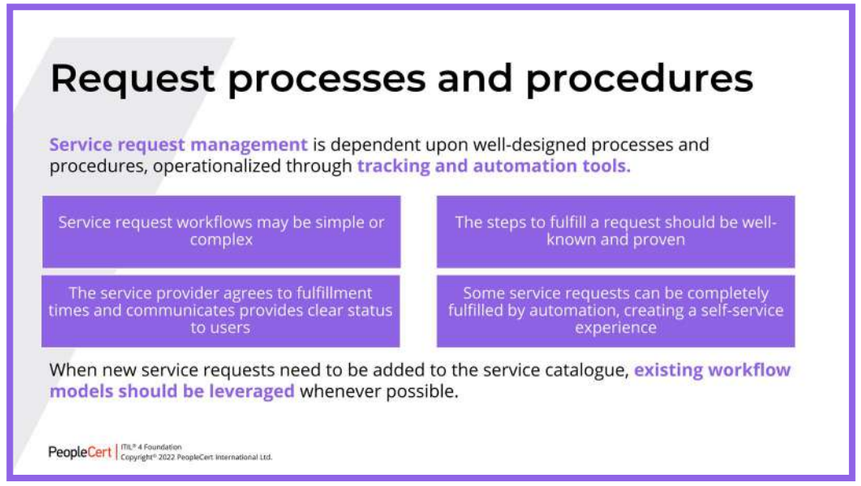
The fulfilment of service requests may include changes to services or their components; usually these are standard changes. Service requests are a normal part of service delivery and are not a failure or degradation of service, which are handled as incidents. Since service requests are predefined and pre-agreed as a normal part of service delivery, they can usually be formalized, with a clear, standard procedure for initiation, approval, fulfilment, and management.

Some service requests have very simple, or even potentially automated, workflows, such as a request for information. Others, such as the set-up of a new employee, may be quite complex and require contributions from many teams and systems for fulfilment.

Guidelines include:

- Steps should be well-known and proven, agree times for fulfilment, and provide clear communication of the status.
- Service requests and their fulfilment should be standardized and automated to the greatest degree possible.
- Policies should be established regarding what service requests will be fulfilled with limited or even no additional approvals so that fulfilment can be streamlined.
- The expectations of users regarding fulfilment times should be clearly set, based on what the organization can realistically deliver.
- Opportunities for improvement should be identified and implemented to produce faster fulfilment times and benefit from automation.
- Policies and workflows should be included for the documenting and redirecting of any requests that are submitted as service requests, but which should be managed as incidents or changes.

Notes



Here we see some discussion of the nature of service request management processes and procedures and some advice on how to set them up for success. Note the advice in the lower right-hand corner box: for often-repeated requests, it is vital to 'shift-left' towards self-service on the front end, and automation on the back end to ensure uniformity and efficiency of request processing and a good customer and user experience.

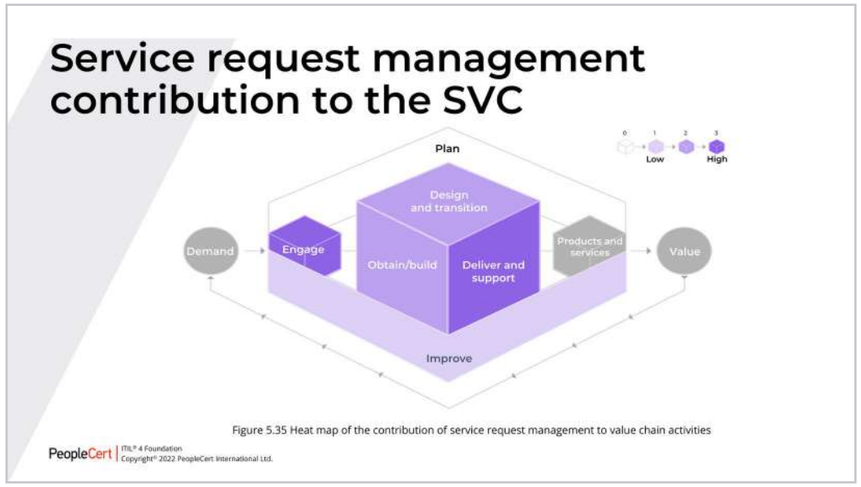


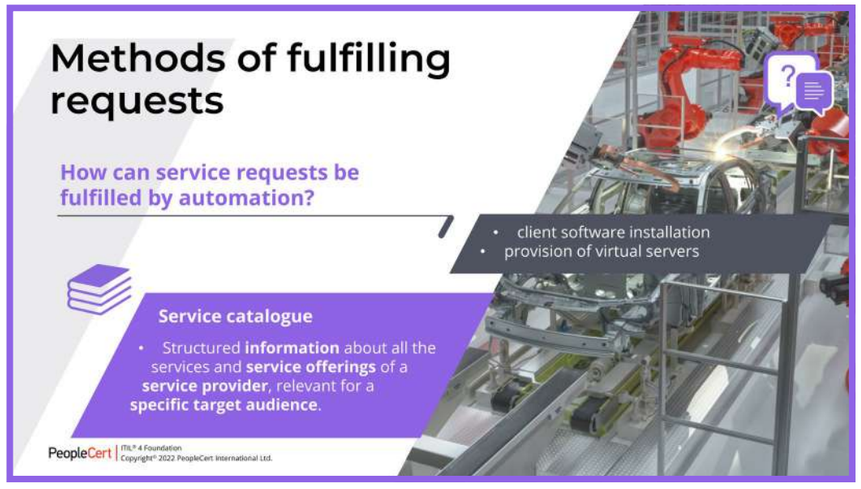
Figure 5.35 shows the contribution of service request management to the service value chain, with the practice being involved in all service value chain activities except the plan activity:

- **Improve** Service request management can provide a channel for improvement initiatives, compliments, and complaints from users. It also contributes to improvement by providing trend, quality, and feedback information about fulfilment of requests.
- **Engage** Service request management includes regular communication to collect user-specific requirements, set expectations, and to provide status updates.
- **Design and transition** Standard service components may be transitioned to the live environment through service request fulfilment.
- **Obtain/build** Obtaining pre-approved service components may be fulfilled through service requests.
- **Deliver and support** Service request management makes a significant contribution to normal service delivery. This activity of the value chain is mostly concerned with ensuring users continue to be productive, and sometimes depends heavily on fulfilment of their requests.

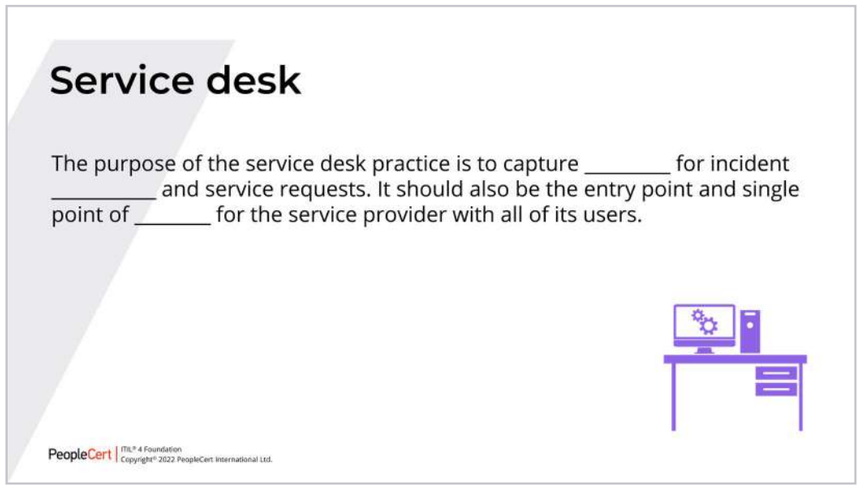
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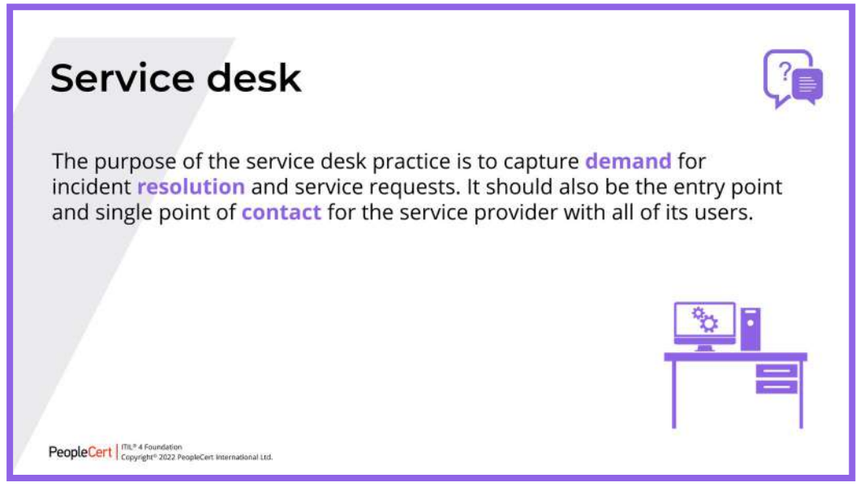


Some service requests can be completely fulfilled by automation from submission to closure, allowing for a complete self-service experience. Examples include client software installation or provision of virtual servers.



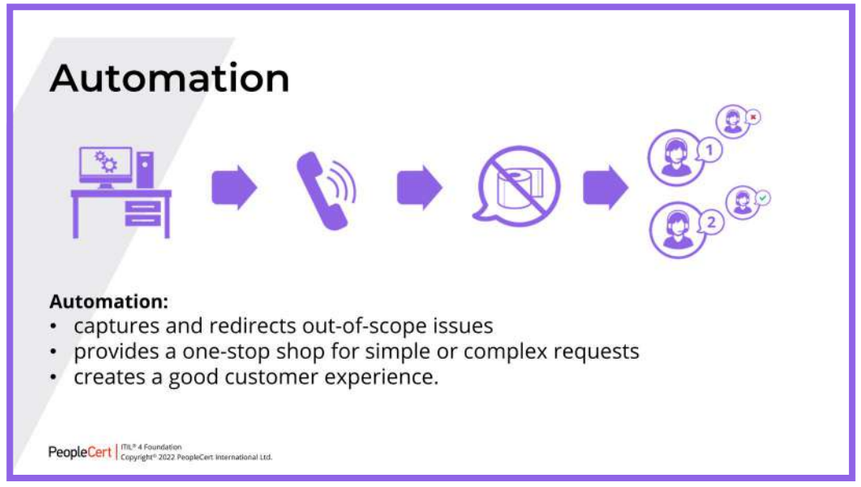
See if you can recall the purpose of the service desk practice by filling in the blank words.

Notes



The purpose of the service desk practice is to capture demand for incident resolution and service requests. It should also be the entry point and single point of contact for the service provider with all of its users. Service desk may also be referred to as the help desk, tech support, or just IT support in some organizations. The service desk provides much more than just help to users: In fact, it provides service, which is why this shift in language has taken place. How this practice is managed and delivered may vary from a physical team of people on shift work to a distributed mix of people connected virtually, or automated technology and bots. The function and value remain the same, regardless of the model. Many IT careers start in service desk, so the analysts may be relatively inexperienced. We could make the mistake, as a result, of underestimating their importance. In reality, they are the face of the IT service provider and the people the users talk to, and if they cannot perform well, then all the energy we put in behind the scenes can still produce a disastrous customer experience. If users see the service desk as lacking skills, or unhelpful, they will attempt to circumvent them altogether.

Notes



With the increased automation and the gradual removal of technical debt, the focus of the service desk is to provide support for people and business rather than simply resolve technical issues. Part of this role is to capture and redirect issues that are out of scope for them. They need to be a one-stop shop so that users feel comfortable approaching them for whatever they need, from a very complex query to a request for a smartphone.

To create a good customer experience, they need good processes to deal with issues that are not theirs. For instance, if the service desk gets a call to say that a toilet on the third floor is out of paper, they could simply tell the caller to call building maintenance. Alternatively, they could offer to contact business maintenance for them, get the issue dealt with, and find out whether they would like feedback. In being prepared to do this, the service desk greatly increases the chances of being seen as helpful, and therefore will receive all of the requests which are in scope for them, and would otherwise be lost.



Consider what the key aspects of a good service desk are, and what services a good service desk should deliver.

Notes

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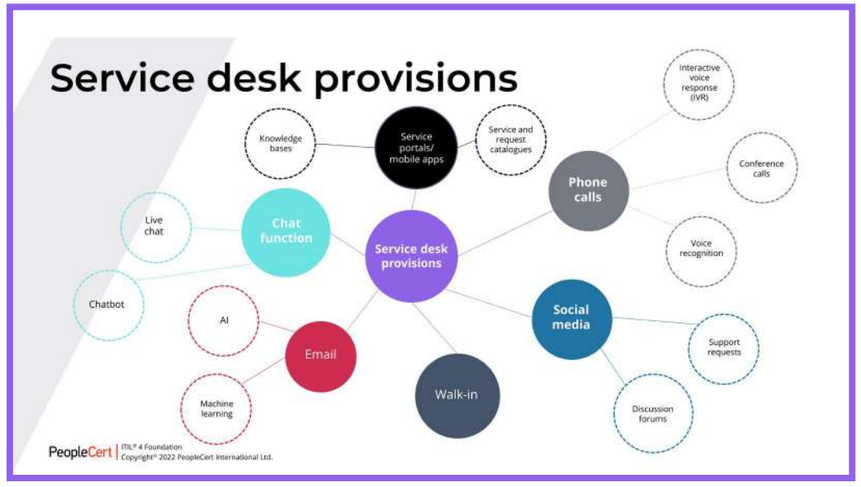
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Service desks are increasingly being used to have various matters arranged, explained, and coordinated, rather than just to get broken technology fixed. The service desk has become a vital part of any service operation.

They also have a major influence on the user experience and how the service provider is perceived by the users. Another key aspect of a good service desk is its practical understanding of the wider organization, the business processes, and the users. Service desks add value by understanding and acting on the business actions. The service desk should provide an empathetic and informed link between the service provider and its users.

Notes



Service desks provide a variety of channels for access. These include:

- Phone calls, which can include specialized technology, such as interactive voice response (IVR), conference calls, voice recognition, and others.
- Service portals and mobile applications, supported by service and request catalogues, and knowledge bases.
- Chat, through live chat and chatbots.
- Email for logging and updating, and for follow-up surveys and confirmations. Unstructured emails can be difficult to process, but emerging technologies based on AI and machine learning are starting to address this.
- Walk-in service desks are becoming more prevalent in some sectors, for example higher education, where there are high peaks of activity that demand physical presence.
- Text and social media messaging, which are useful for notifications in case of major incidents and for contacting specific stakeholder groups, but can also be used to allow users to request support.
- Public and corporate social media and discussion forums for contacting the service provider and for peer-to-peer support.

Notes

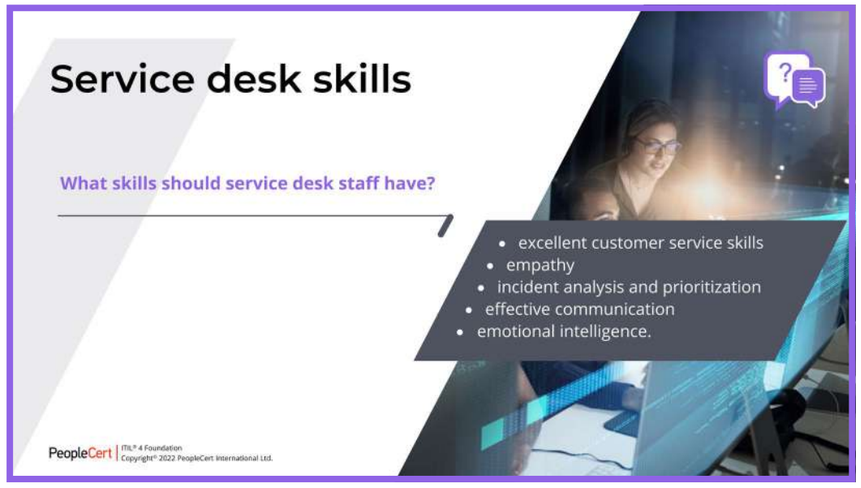


Some service desks have a limited support window where service cover is available (for example, 08.00 to 20.00, Monday to Friday). Staff are therefore expected to work in shift patterns to provide consistent support levels. In some cases, the service desk is a tangible team, working in a single location. A centralized service desk requires supporting technologies, such as:

- intelligent telephony systems, incorporating computer-telephony integration, IVR, and automatic call distribution
- workflow systems for routing and escalation
- workforce management and resource planning systems
- a knowledge base
- call recording and quality control
- remote access tools
- dashboard and monitoring tools
- configuration management systems.

In other cases, a virtual service desk allows agents to work from many locations. A virtual service desk requires more sophisticated supporting technology, involving more complex routing and escalation; these solutions are often cloud-based.

Notes



Key skills for service desk staff include:

- excellent customer service skills
- empathy
- incident analysis and prioritization
- effective communication
- emotional intelligence.

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Notes

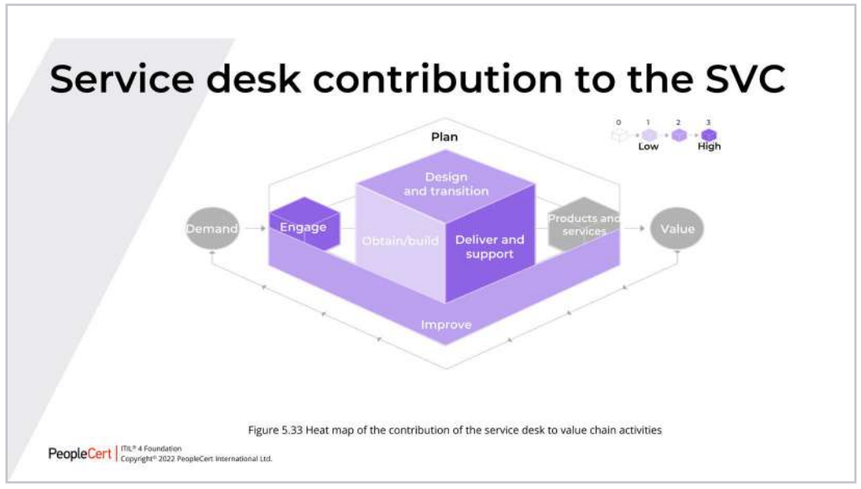
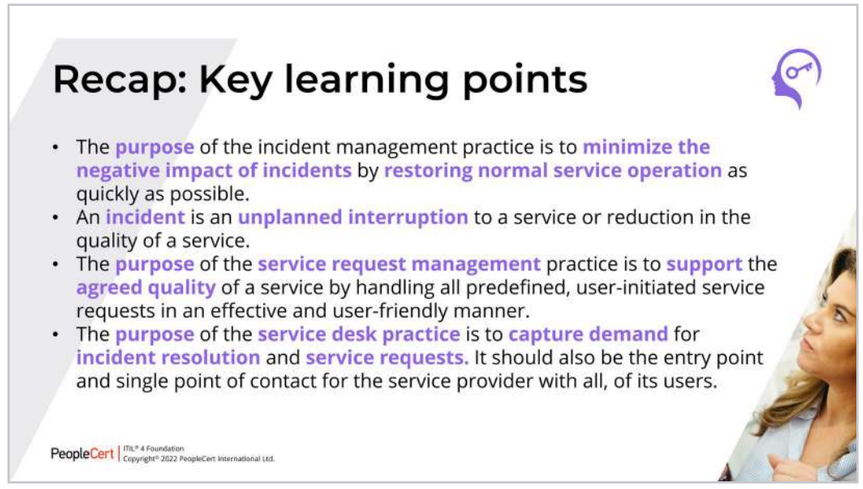


Figure 5.33 Heat map of the contribution of the service desk to value chain activities

Figure 5.33 shows the contribution of the service desk to the service value chain, with the practice being involved in all value chain activities except plan:

- **Improve** Service desk activities are constantly monitored and evaluated to support continual improvement, alignment, and value creation. Feedback from users is collected by the service desk to support continual improvement.
- **Engage** The service desk is the main channel for tactical and operational engagement with users.
- **Design and transition** The service desk provides a channel for communicating with users about new and changed services. Service desk staff participate in release planning, testing, and early life support.
- **Obtain/build** Service desk staff can be involved in acquiring service components used to fulfil service requests and resolve incidents.
- **Deliver and support** The service desk is the coordination point for managing incidents and service requests.

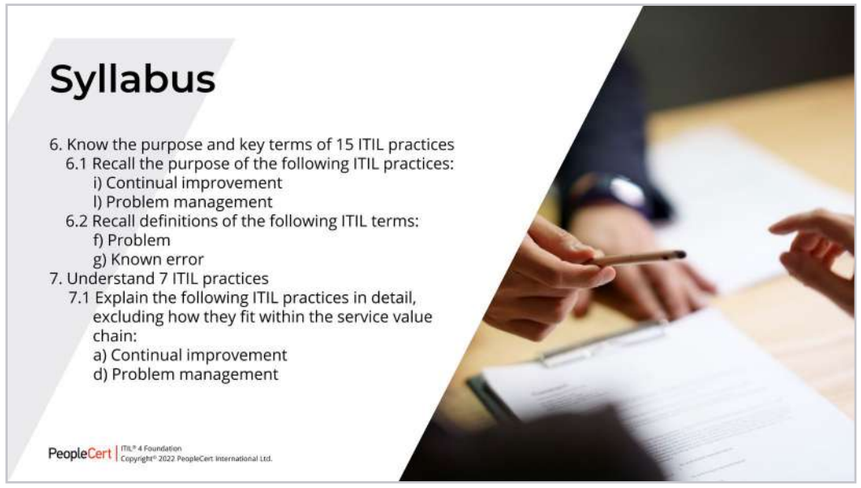
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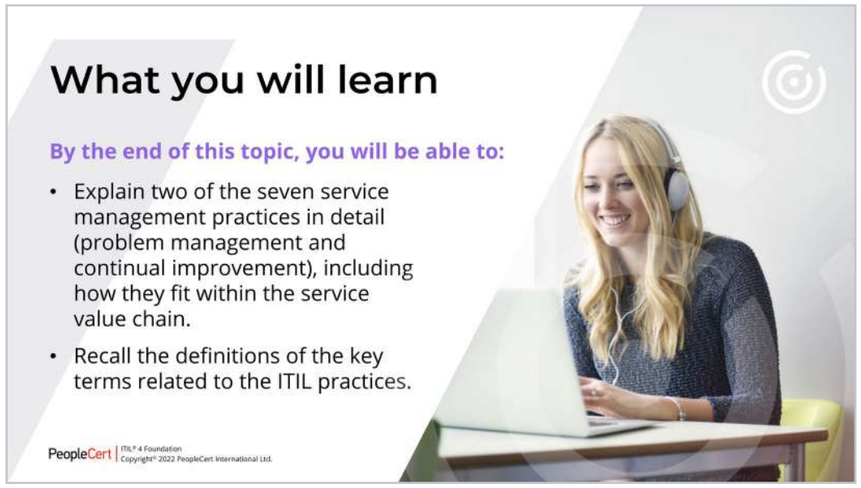


This slide outlines the key learning points that were covered in this topic.

Notes

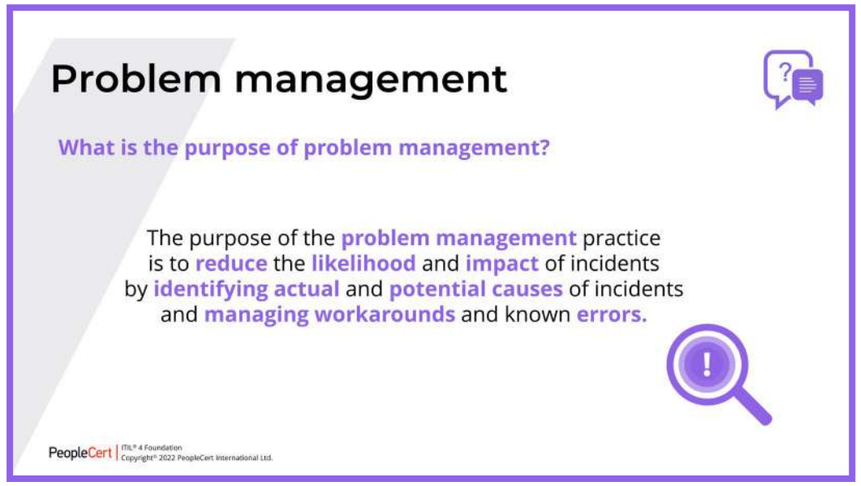
5.4 Key management practices – Part 2





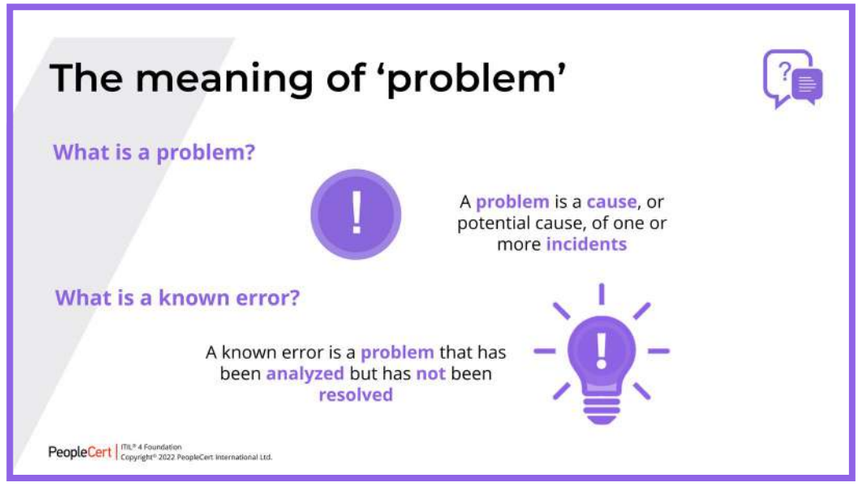
This slide outlines the key learning points that will be covered in this topic.

Notes



The purpose of the problem management practice is to reduce the likelihood and impact of incidents by identifying actual and potential causes of incidents and managing workarounds and known errors. Remember that incidents may point to problems, or not. An incident might be an isolated issue that can be solved acceptably with a quick fix or workaround, or it might point to a more enduring, pervasive, or systemic issue that requires a deeper root cause analysis. Not every incident indicates a problem or requires a root cause analysis (RCA).

Notes



A problem is a cause, or potential cause, of one or more incidents. A known error is a problem that has been analysed but has not been resolved.

There are three ways that an incident could indicate a problem, and the need for a root cause analysis. As an IT professional or service provider, you may notice that something appears to be significantly wrong and requires a deep dive investigation. The second is that your customer could recognize the same thing and let you know. These could be major incidents, which have had a significant impact on customers, have caused sufficient concern for the service provider to want to make that deep dive, or require a root cause analysis due to their level of severity.

Both of these ways are human oriented and require human wisdom.

Thirdly, a tool can help you out. For instance, imagine that your service desk has 100 analysts. Each of them sees an incident today, and to each of them, their incident doesn't seem like a big deal, because it was just one. If, however, you could look at all their 100 incidents, you might find that actually you had 100 incidents with common factors – a very different interpretation than each analyst had individually. Root cause analyses and the opening of a problem usually happen as a result of recurring incidents or major incidents. The major ones cause such an impact that everyone wants them fixed. The recurring ones might be solvable with a workaround, but if we had 100 incidents today, and we might have 100 incidents tomorrow, it is probably cheaper to dive deep and raise a problem record.

Notes

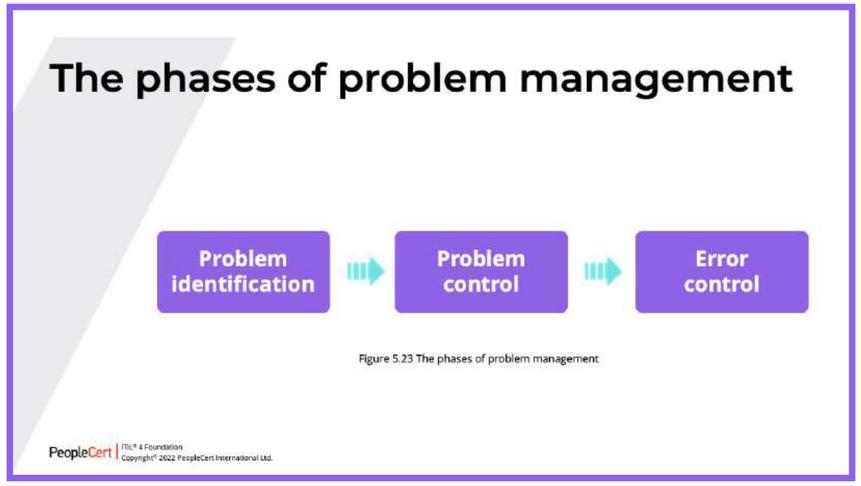
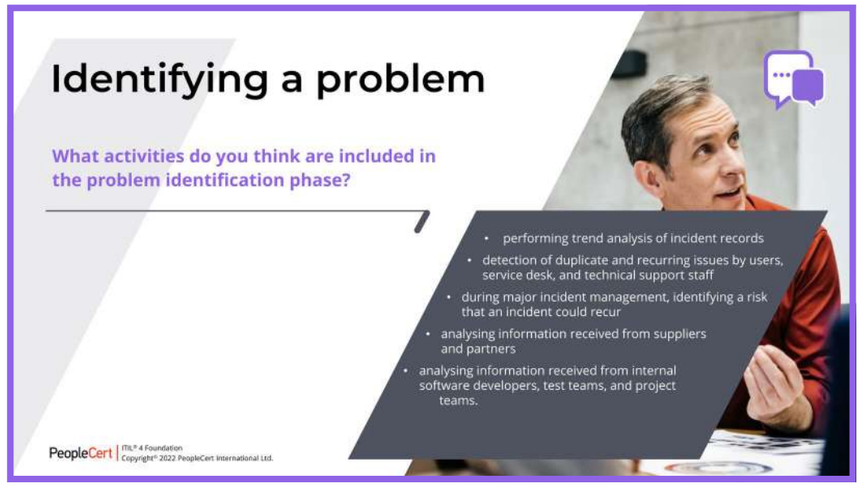


Figure 5.23 The phases of problem management

Every service has errors, flaws, or vulnerabilities that could cause incidents. They may include errors in any of the four dimensions of service management. Many errors are identified and resolved before a service goes live. However, some remain unidentified or unresolved, and may be a risk to live services. In ITIL, these errors are called problems and they are addressed by the problem management practice. Problem management involves three distinct phases.

These phases are problem identification, problem control, and error control. We will look at each phase in turn in the following slides.

Notes



Problem identification activities identify and log problems. These include:

- performing trend analysis on incident records
- detection of duplicate and recurring issues by users, service desk, and technical support staff
- during major incident management, identifying a risk that an incident could recur
- analysing information received from suppliers and partners
- analysing information received from internal software developers, test teams, and project teams.

Notes



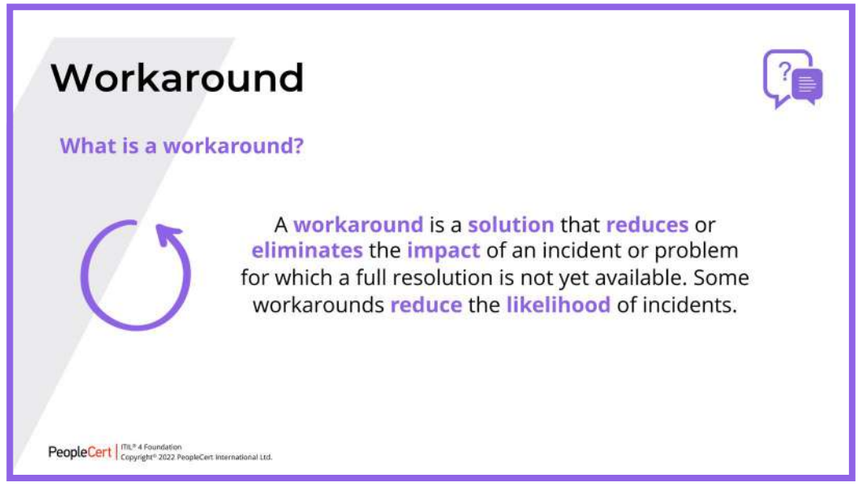
Activities include:

- problem analysis
- documenting workarounds
- known errors.

Problems are prioritized for analysis, based on the risk that they pose and are managed as risks, based on their potential impact and probability. Incidents typically have many interrelated causes, and the relationships between them can be complex. Problem control should consider all contributory causes, including causes that contributed to the duration and impact of incidents, as well as those that led to the incidents happening. It is important to analyse problems from the perspective of all four dimensions of service management.

When a problem cannot be resolved quickly, it is often useful to find and document a workaround for future incidents, based on an understanding of the problem. Workarounds are documented in problem records. This can be done at any stage; it does not need to wait for analysis to be completed. If a workaround has been documented early in problem control, then this should be reviewed and improved after problem analysis has been completed. Error control regularly reassesses the status of known errors that have not been resolved, including overall impact on customers, availability and cost of permanent resolutions, and effectiveness of workarounds. The effectiveness of workarounds should be evaluated each time a workaround is used, as the workaround may be improved based on the assessment.

Notes



The definition of workaround is a solution that reduces or eliminates the impact of an incident or problem for which a full resolution is not yet available. Some workarounds reduce the likelihood of incidents.

An effective incident workaround can become a permanent way of dealing with some problems when resolving the problem is not viable or cost effective. In this case, the problem remains in the known error status, and the documented workaround is applied should related incidents occur. Every documented workaround should include a clear definition of the symptoms to which it applies. In some cases, workaround application can be automated. Some of these root causes, we cannot fix. Maybe it's an issue with a commercial off-the-shelf product, and we can only work around it. Sometimes it might be with our own code, and we need to weigh up the cost of a permanent fix, with the cost of not fixing it. If it's not feasible or cost justifiable to fix it, then a workaround may still be the best solution.

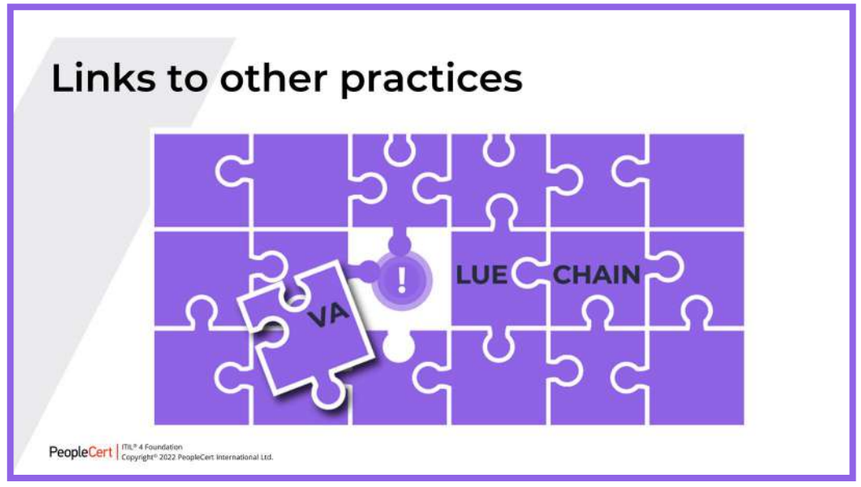
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For other problems, a way to fix the error should be found. This is a part of error control. Error control activities include:

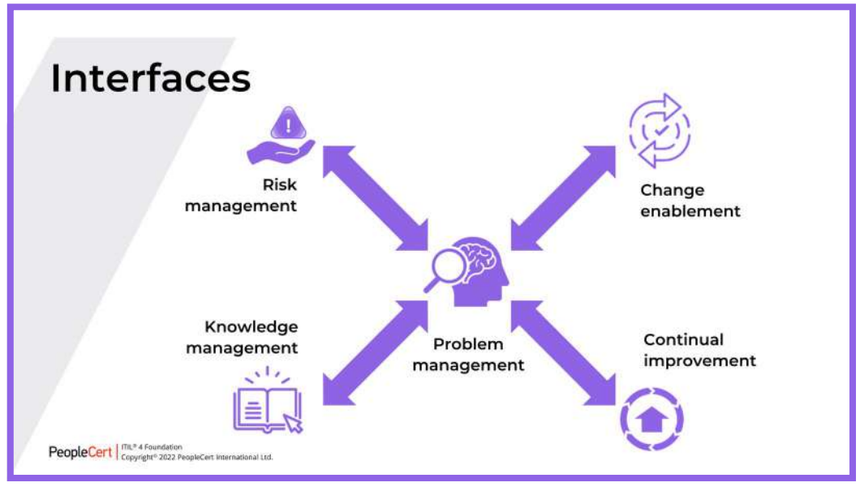
- manage known errors, which are problems where initial analysis has been completed
- identify potential permanent solutions
- regularly reassess the status of known errors
- assess the impact on customers
- identify the availability and cost of permanent resolutions.

Notes



Problem management activities are very closely related to incident management. The practices need to be designed to collaborate within the value chain. Activities from these two practices may complement each other (for example, identifying the causes of an incident is a problem management activity that might lead to incident resolution), but they may also conflict (for example, investigating the cause of an incident might delay actions needed to restore service).

Notes



Problem management activities interface with other practices such as:

- risk management
- change enablement
- knowledge management
- continual improvement.

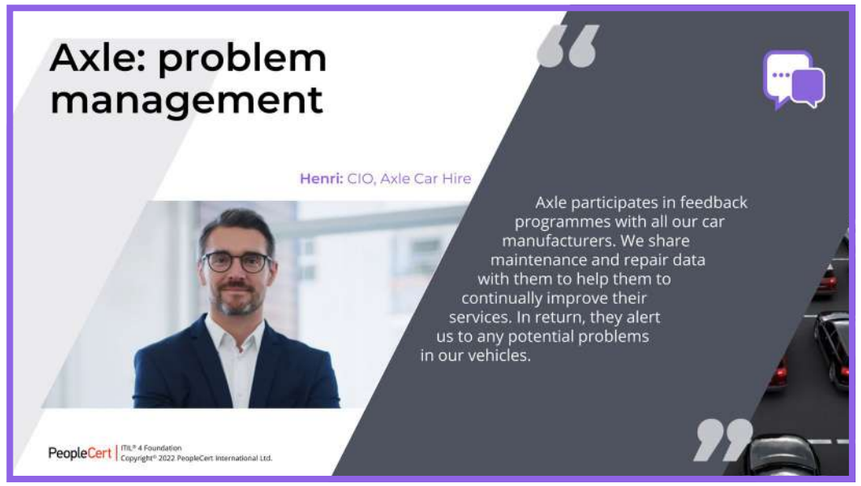
Problem management activities can be organized as a specific case of risk management. They aim to identify, assess, and control risks in any of the four dimensions of service management. It is useful to adopt risk management tools and techniques for problem management.

Implementation of problem resolution is often outside the scope of problem management. Problem management typically initiates resolution via change enablement and participates in the postimplementation review. However, approving and implementing changes is out of scope for the problem management practice.

Output from the problem management practice includes information and documentation concerning workarounds and known errors. In addition, problem management may utilize information in a knowledge management system to investigate, diagnose, and resolve problems.

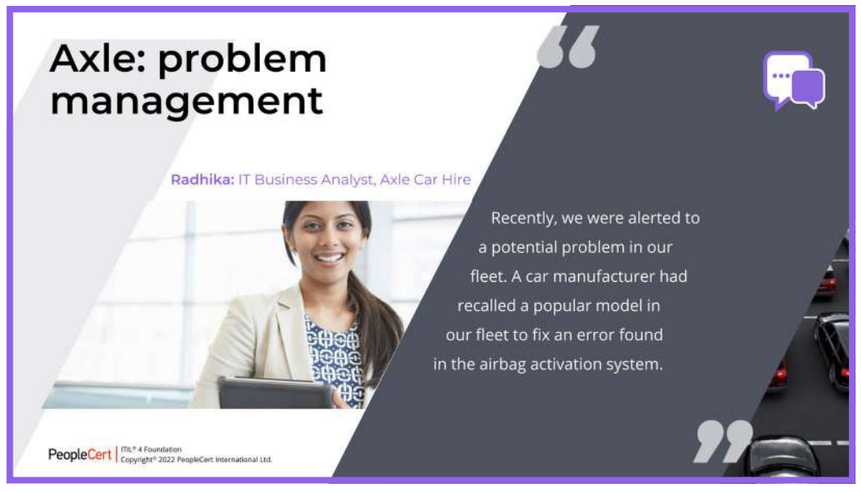
Problem management activities can identify improvement opportunities in all four dimensions of service management. Solutions can, in some cases, be treated as improvement opportunities, so they are included in a continual improvement register (CIR), and continual improvement techniques are used to prioritize and manage them, sometimes as part of a product backlog.

Notes





Axle Car Hire needs to be ready to handle any problems that arise with their services. The following slides outlines how they deal with problems.





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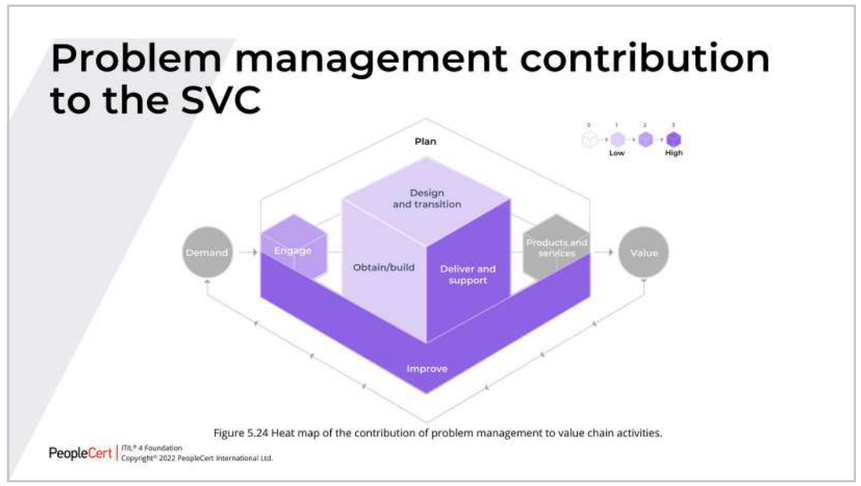


Figure 5.24 Heat map of the contribution of problem management to value chain activities.

Figure 5.24 shows the contribution of problem management to the service value chain, with the practice being applied mainly to the improve and deliver and support value chain activities:

- **Improve** This is the main focus area for problem management. Effective problem management provides the understanding needed to reduce the number of incidents and the impact of incidents that cannot be prevented.
- **Engage** Problems that have a significant impact on services will be visible to customers and users. In some cases, customers may wish to be involved in problem prioritization, and the status and plans for managing problems should be communicated. Workarounds are often presented to users via a service portal.
- **Design and transition** Problem management provides information that helps to improve testing and knowledge transfer.
- **Obtain/build** Product defects may be identified by problem management; these are then managed as part of this value chain activity.
- **Deliver and support** Problem management makes a significant contribution by preventing incident repetition and supporting timely incident resolution.

Notes



The purpose of the continual improvement practice is to align the organization's practices and services with changing business needs through the ongoing improvement of products, services, and practices, or any element involved in the management of products and services.

Included in the scope of the continual improvement practice is the development of improvement-related methods and techniques and promoting continual improvement culture across the organization, in line with the organization's overall strategy. The commitment to and practice of continual improvement must be embedded into every fiber of the organization. If it is not, there is a real risk that daily operational concerns and major project work will eclipse continual improvement efforts.

Notes



The continual improvement process can be applied to any situation.

Module 5
ITIL 4 Management practices

Notes

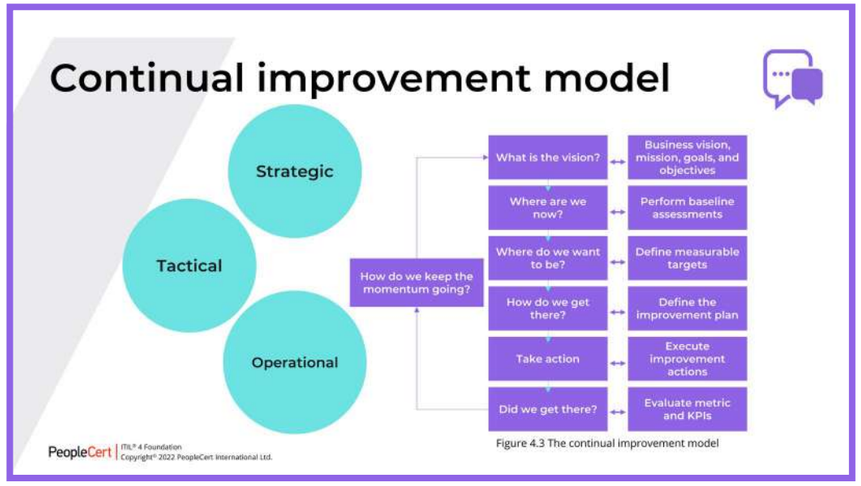


Figure 4.3 The continual improvement model

Continual improvement is featured in the SVS strategically, is a tactical SVC activity, and it is a practice to be used daily or operationally. To maximize the effectiveness of services, each person who contributes to the provision of a service should keep continual improvement in mind and should always be looking for opportunities to improve. The continual improvement model applies to the SVS in its entirety, as well as to all the organization's products, services, service components, and relationships.

The ITIL continual improvement model can be used as a high-level guide to support improvement initiatives. Use of the model increases the likelihood that ITSM initiatives will be successful, puts a strong focus on customer value, and ensures that improvement efforts can be linked back to the organization's vision. The model supports an iterative approach to improvement, dividing work into manageable pieces with separate goals that can be achieved incrementally.

Notes

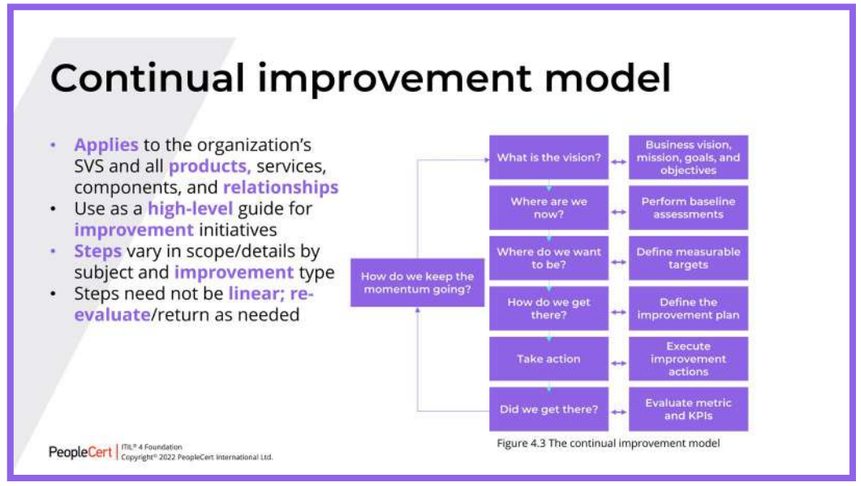


Figure 4.3 The continual improvement model

The continual improvement model is a structured approach to making improvements you can use to increase the chance of your initiative's success, as it puts the focus on customer value, and ensures improvement efforts can be linked back to what came before. Use it as a workflow, and a high-level reminder to ensure improvements are properly managed, linked to goals and priorities, and producing sustainable results. .

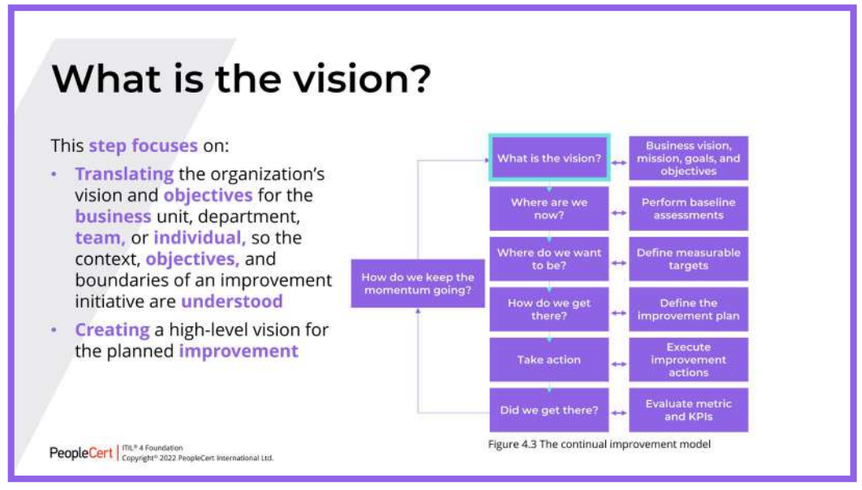


Figure 4.3 The continual improvement model

Step 1 is 'what is the vision?' What improvement do you envision, and how does it support the organization's vision, strategies and objectives? This step focuses on articulating how the initiative supports the organization's vision and objectives and creating a high-level vision for the improvement. If you skip this step, improvements might only be optimized for people or teams involved and not for the whole organization, or focus on non-value-adding activities.

Notes

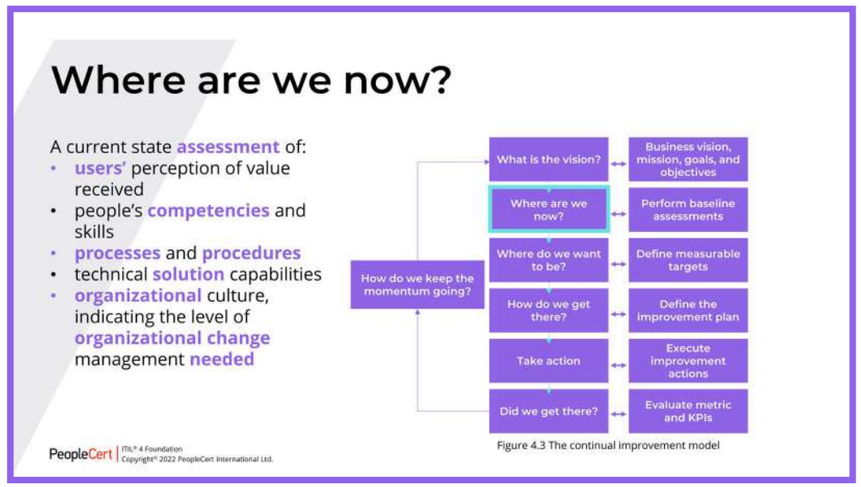


Figure 4.3 The continual improvement model

Step 2 is 'where are we now?' Improvement is a journey from the current state (Point A) to a future state (Point B); this step clearly defines what the current state looks like by assessing, for example, services, users' perception of value received, people's competencies and skills, culture, processes and procedures, and capabilities of available technology solutions. If you skip this step, it will be hard to show progress, as you'll have no baseline to compare to.

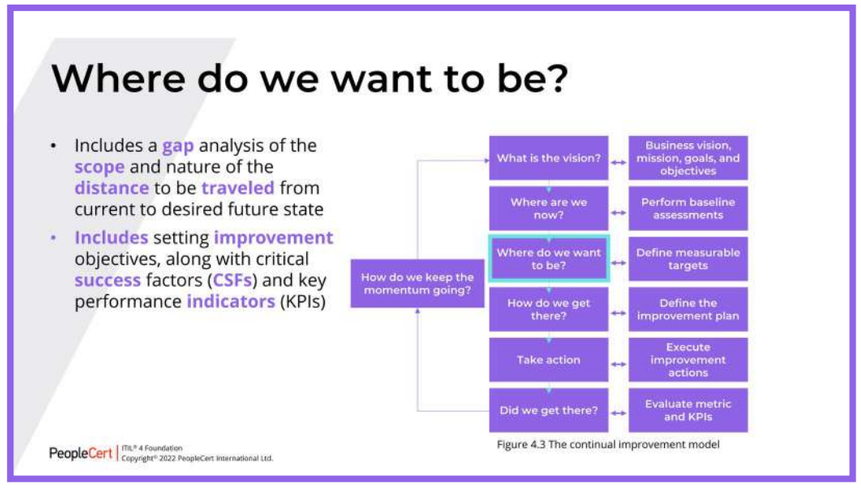
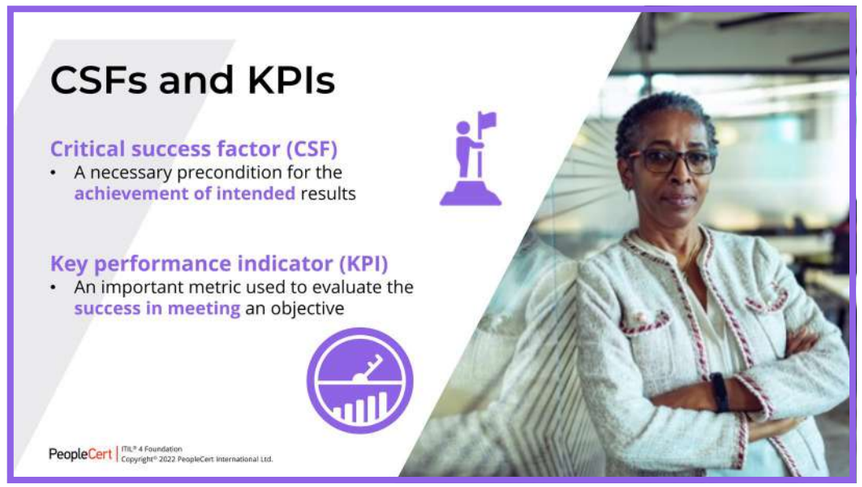


Figure 4.3 The continual improvement model

Step 3 is 'where do we want to be?' Here you outline 'Point B', the target state, by specifying objectives following the SMART principle, making them Specific, Measurable, Achievable, Relevant, and Timebound, and determine critical success factors (CSFs) and key performance indicators (KPIs). If you skip this step, the target state will be unclear, and it will be hard to explain to stakeholders what they may gain from the initiative, resulting in low support for or even resistance to your initiative.

Notes



Critical success factors or CSFs are things without which something does not exist. To grown an oak tree, for example, CSFs include an acorn, sunlight, water, and soil. Key performance indicators or KPIs are metrics that fall under each CSF, for example, how much sunlight and water? What must the PH of the soil be? Identify CSF for your initiatives to know what you must have to succeed, and KPIs under each to understand what success will look like.

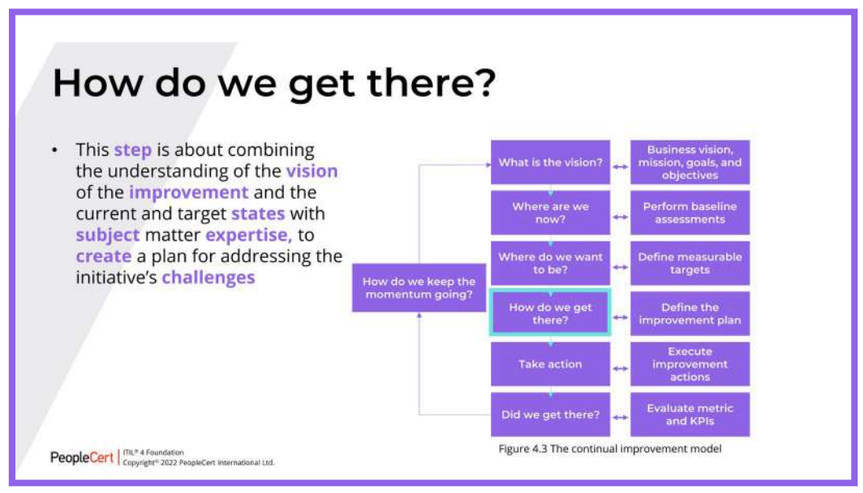


Figure 4.3 The continual improvement model

Step 4 is 'how do we get there?' where you agree a specific route from point A to point B and create a plan to do so. The plan may be a straightforward and direct, or it may be more involved. You may have to design experiments to test which options are best. You may find it most effective to work iteratively. If so, with each iteration, check progress, re-evaluate the approach, and change direction if appropriate. If you skip this step, you are likely to flounder and fail to achieve objectives, making it harder to get support for future improvements.

Notes

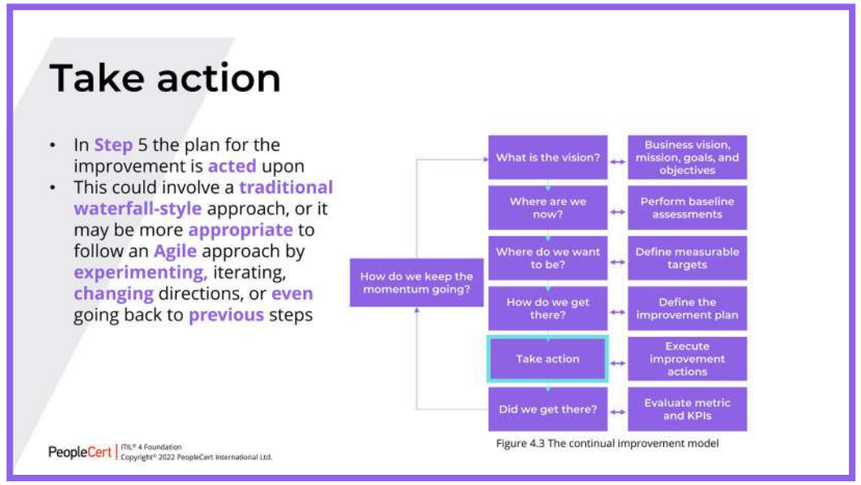


Figure 4.3 The continual improvement model

Step 5 is to 'take action' to implement the plan. Remain focused on the objective and open to change in how you reach it, rather than rigidly adhering to the plan. Maintain focus on measuring progress towards the vision, managing risks, and ensuring visibility and awareness of the initiative. Draw on ITIL practices, for example, organizational change management, measurement and reporting, risk management to succeed here. When the step is done, if you succeed you will be at the journey's end, in the new current state.

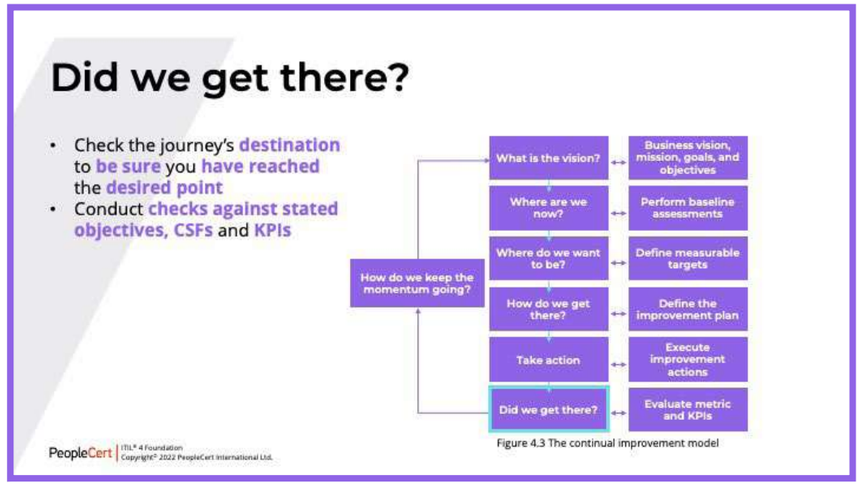


Figure 4.3 The continual improvement model

Step 6 is 'did we get there?', where you validate success and check and confirm progress (against original objectives) and the continued relevance of the intended value of the initiative. If you haven't achieved the desired result, you might select additional actions, resulting in a new iteration. If you skip this step, it will be hard to know if you have achieved desired or promised outcomes, and you would lose any lessons from this iteration that would support course corrections.

Notes

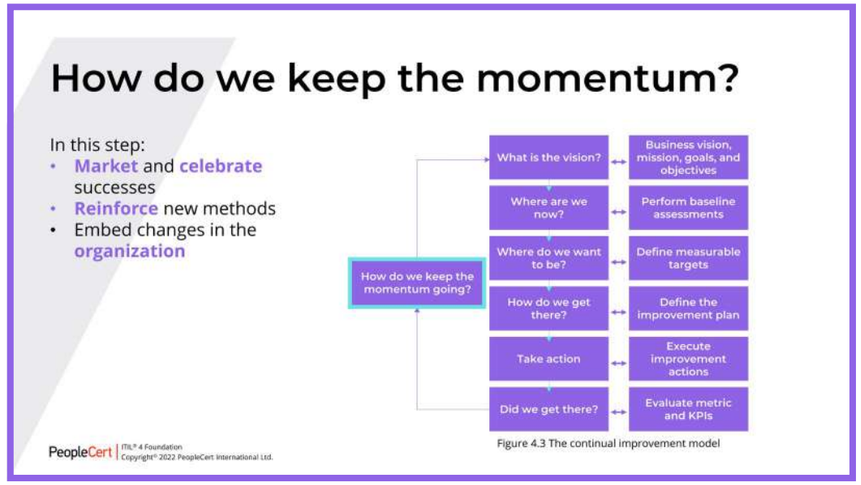


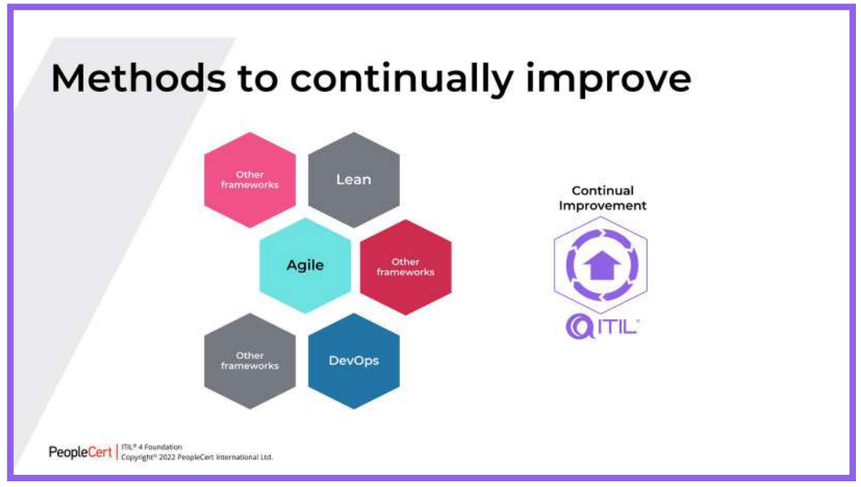
Figure 4.3 The continual improvement model

Step 7 is 'how do we keep the momentum going?', where we work to market successes and reinforce new methods, to ensure progress made is not lost and that support exists for future initiatives. Use the organizational change and knowledge management practices to embed the improvements and changed behaviors in the organization so that they are not at risk of reversion. If you did not achieve expected results, tell stakeholders why and communicate lessons learned. If you skip this step, progress made will be lost over time and it may be difficult to get support for future initiatives.

Notes



Axle Car Hire is always looking for ways to continually improve its services.



There are many methods, models, and techniques that can be employed for making improvements. It is not a requirement for an organization to specifically use the ITIL 4 continual improvement model. Different types of improvement may call for different improvement methods. For example, some improvements may be best organized into a multiphase project, while others may be more appropriate as a single quick effort.

Although there are numerous methods or techniques that exist (many of which are contained in other sources of service management thought leadership such as Lean, Agile and DevOps) there is also no requirement for an organization to apply all of them. The Lean theory of constraint helps us see where we need to focus; we focus our resource on the thing which is constraining us first. If we run a cart repair shop, and a cart comes in making a squealing sound, we want to make it work better. If we have a small amount of grease, we would traditionally apply it to the wheel which is making the loudest noise (the squeaky wheel gets the grease), but in fact, we should identify which wheel is holding the cart back the most, and grease that one, even if that leaves the squeakiest one still squeaking. ITIL 4 is very agnostic when it comes to frameworks, so borrowing ideas from Lean is fine; we do not reinvent the wheel (squeaky or otherwise) if a framework already exists to do what we need.

Ultimately, an organization should only implement continual improvement methods and techniques that are most compatible with their own needs, ways of working and types of improvement to be undertaken.

Notes

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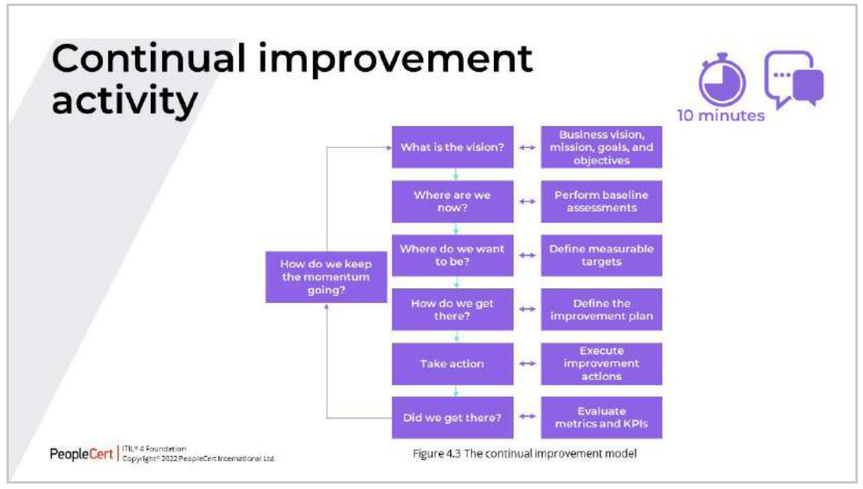


Figure 4.3 The continual improvement model

Use the ITIL SVS continual improvement model shown to develop a health goal and plan.



Notes



To track and manage improvement ideas from identification through to final action, organizations use a database or structured document called a continual improvement register (CIR). There can be more than one CIR in an organization, as multiple CIRs can be maintained on individual, team, departmental, business unit, and organizational levels.

Some organizations maintain a single master CIR but divide how it is used and by who at a more granular level. Improvement ideas can also initially be captured in other places and via other practices, such as during project execution or software development activities. In this case, it is important to document for attention the improvement ideas that arise as part of ongoing continual improvement.

Notes



Notes



The highest levels of the organization need to take responsibility for embedding continual improvement into the way that people think and work. Without their leadership and visible commitment to continual improvement, attitudes, behaviour, and culture will not evolve to a point where improvements are considered in everything that is done, at all levels.

However, training and other enablement assistance should be provided to staff members to help them feel prepared to contribute to continual improvement. Most people would say that it is everyone's responsibility to continually improve and contribute in some way. However, there should at least be a small team dedicated full time to leading continual improvement efforts and advocating the practice across the organization.

Notes

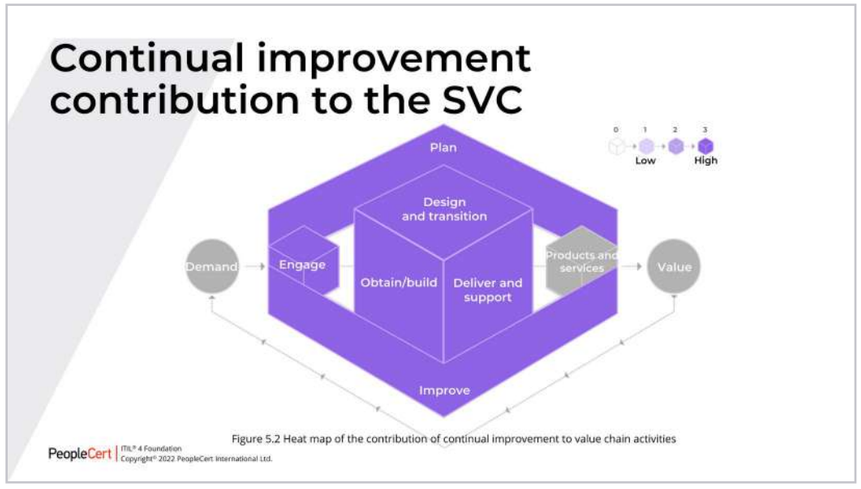
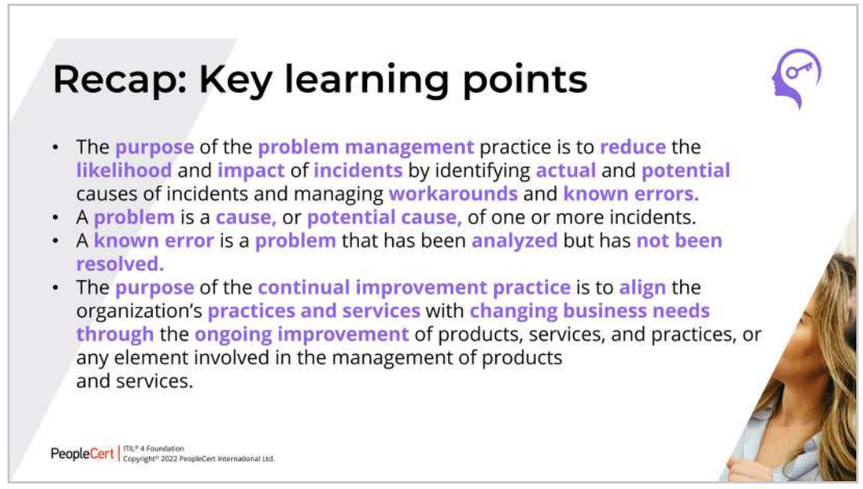


Figure 5.2 Heat map of the contribution of continual improvement to value chain activities

Figure 5.2 shows the contribution of continual improvement to the service value chain, with the practice being involved in all value chain activities:

- **Plan** The continual improvement practice is applied to planning activities, methods, and techniques to ensure that they are relevant to the organization's current objectives and context.
- **Improve** The continual improvement practice is key to this value chain activity. It structures resources and activities, enabling improvement at all levels of the organization and the SVS.
- **Engage, design and transition, obtain/build, and deliver and support** Each of these value chain activities is subject to continual improvement, and the continual improvement practice is applied to all of them.

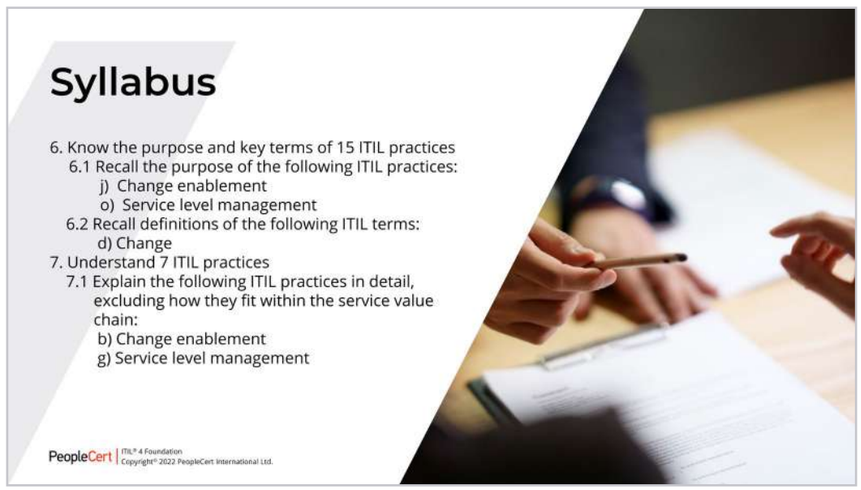
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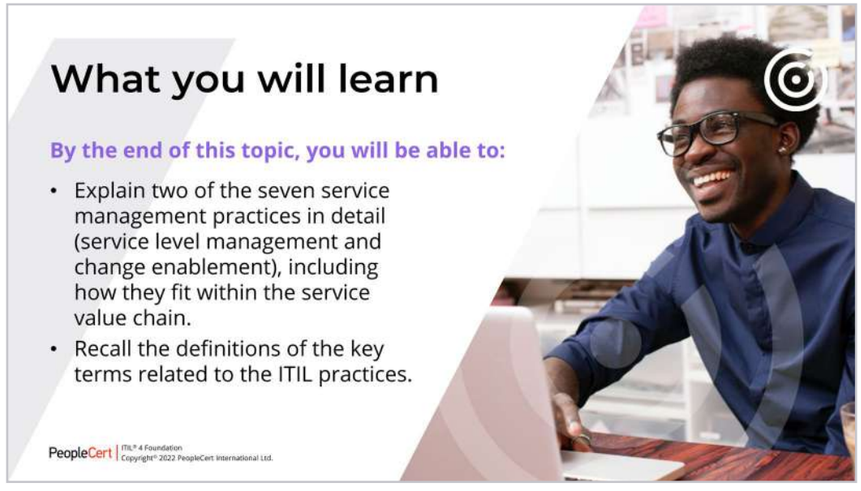


This slide outlines the key learning points that were covered in this topic.

Notes

5.5 Key management practices – Part 3



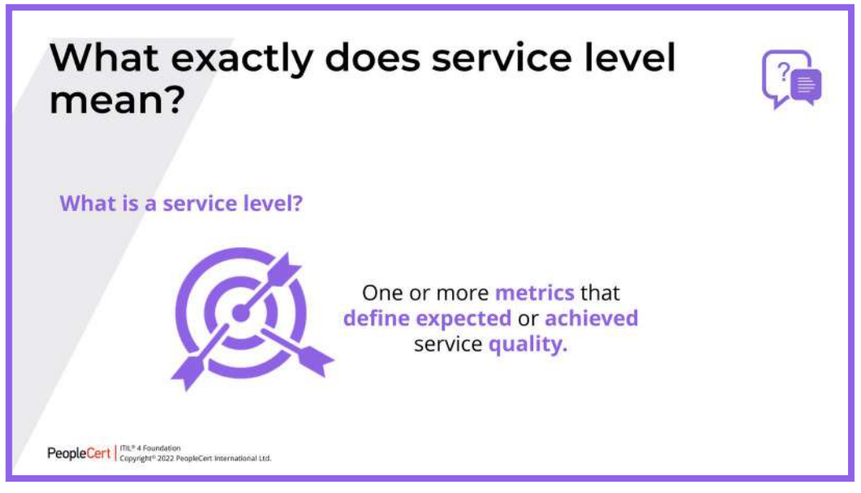


This slide outlines the key learning points that will be covered in this topic.

Notes

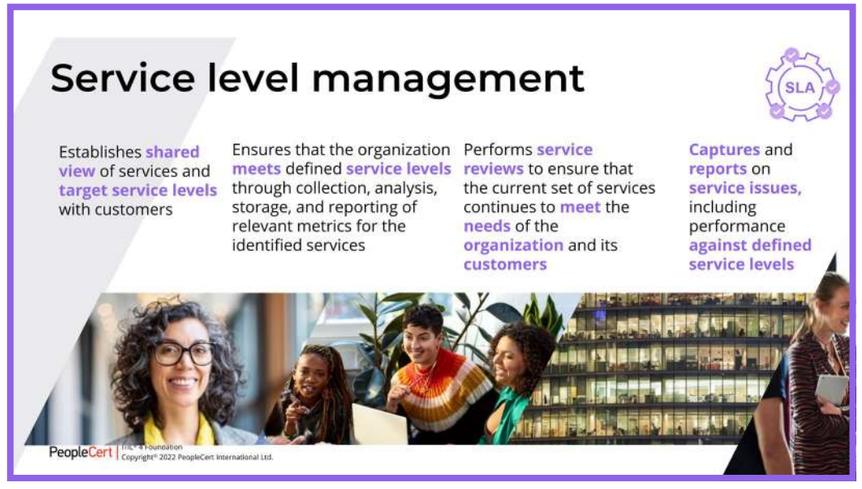


The purpose of the service level management practice is to set clear business-based targets for service levels, and to ensure that delivery of services is properly assessed, monitored, and managed against these targets.



A service level is defined as one or more metrics that define expected or achieved service quality.

Notes



Service level management provides the end-to-end visibility of the organization's services. To achieve this, service level management:

- establishes a shared view of the services and target service levels with customers
- ensures that the organization meets the defined service levels through the collection, analysis, storage, and reporting of the relevant metrics for the identified services
- performs service reviews to ensure that the current set of services continues to meet the needs of the organization and its customers
- captures and reports on service issues, including performance against defined service levels.

The practice requires a holistic focus on the whole service and not simply its constituent parts; for example, simple individual metrics (such as percentage system availability) should not be taken to represent the whole service.

Notes



The skills and competencies for service level management include:

- relationship management
- business liaison
- business analysis
- commercial/supplier management
- pragmatic focus.

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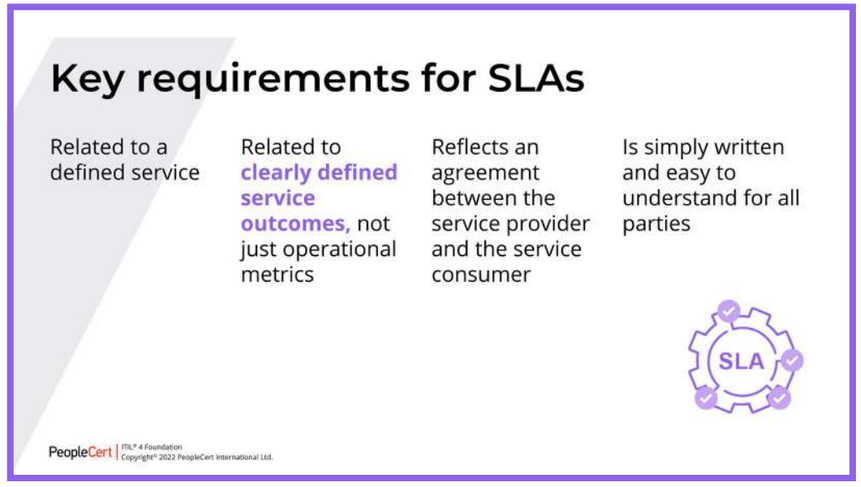


A service level agreement is a documented agreement between a service provider and a customer that identifies both the services required and the expected level of service. Service level agreements (SLAs) have long been used as a tool to measure the performance of services from the customer's point of view, and it is important that they are agreed in the wider business context.

Using SLAs may present many challenges; often, they do not fully reflect the wider service performance and the user experience. SLAs can only be created through customer collaboration, or you are simply imposing them. This means you are defining success, and you might be doing it in a completely different way to your customer. You could be fulfilling your SLAs at all times and constantly disappointing your customer. These are 'watermelon SLAs'; they show up as green on your SLA chart, but if the customer is actually unhappy with what you are delivering, then they are red on the inside.

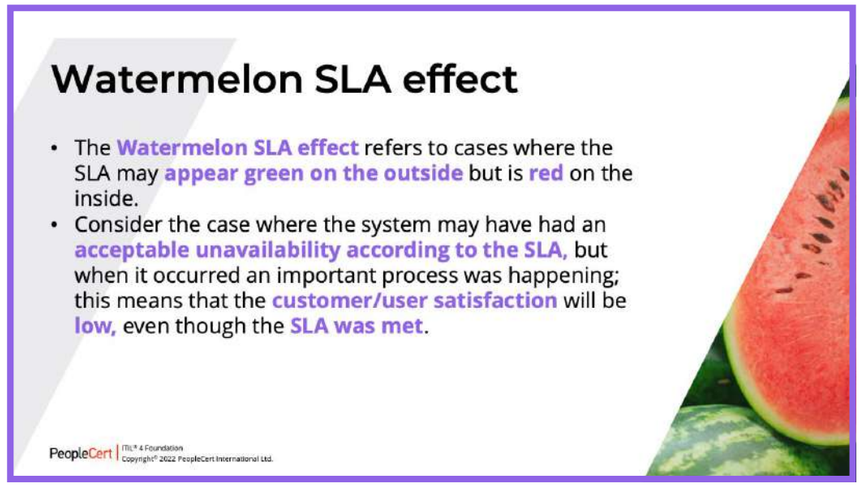
If your customers show up to SLA meetings and do not talk, you can ask them two really good questions. 'Tell me about your worst day ever,' and 'tell me about your best day ever.' As they describe what can go wrong for them, and what it's like when things go well, you can start to understand and probe into how your services can contribute to providing those good days, and avoiding the bad ones, and set SLAs accordingly.

Notes



Here we see the definition of 'service level agreements (or SLAs) up top, and four key requirements for successful SLAs at the bottom. SLAs have long been used to measure the performance of services from the customer's point of view, and it is vital that they are agreed in the wider business context. Using SLAs presents many challenges, as often they do not fully reflect the wider service performance and the user experience. It is important to remember that SLAs are a means to an end, and that end is setting good expectations and garnering good perceptions from customers and users. SLA documents and practices that have become a routine formality and that do not deliver on the needs of the customer should be rethought and adjusted to do so.

Notes



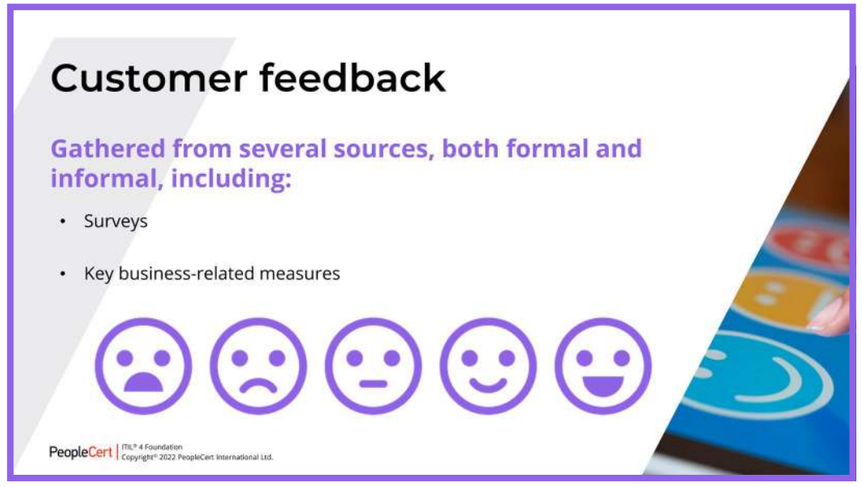
Here we see a definition of the watermelon SLA effect. For example, system availability may have met a 99.6% commitment, with an acceptable unavailability of just 0.4%. However, that 0.4% occurrence could happen just when a key process is in play (e.g. when a key commercial transaction is in process, an operating theatre is in use, or when point-of-sale terminals are in use). In this scenario customer/user satisfaction will be low, even though the SLA has been met. This is the watermelon effect, where the provider thinks they are doing a great job (reports are green on the outside, like a watermelon's skin), but customers are frustrated with the service (that is the red on the inside). To avoid this, metrics and measures that are a true reflection of the customer's actual experience and satisfaction level with the entire service must be identified and used; the only way to learn what they are is directly from customers.

Notes



Service level management involves collating and analysing information from a number of sources. Let us look at customer engagement. When establishing and defining SLAs with customers, this will involve initial 'active' listening, discovery, and information capture on which to base metrics, measurement, and ongoing progress discussions. Active listening is employed in service level management to understand as well as simply hear what is being said. Active listening is also required for optimal success in the example described on the previous slide.

Notes



Another key contributing factor towards service level agreement is customer feedback. This is ideally gathered from several sources, both formal and informal, including:

- **Surveys** These can be from immediate feedback such as follow-up questions to incidents or from more reflective periodic surveys that gauge feedback on the overall service experience. Both are event-based.
- **Key business-related measures** These are measures agreed between the service provider and its customer, based on what the customer values as important. This could be a bundle of SLA metrics or a very specific business activity, such as a sales transaction, project completion, or operational function, for example getting an ambulance to the site of an accident within x minutes.

Notes



In this case there are two types of metrics we are looking at:

- **Operational metrics** These are the low-level indicators of various operational activities. They might include system availability, incident response and fix times, change and request processing times, and system response times.
- **Business metrics** These can be any business activity that is deemed useful or valuable by the customer and used as a means of gauging the success of the service. These can vary from some simple transactional binary measures such as ATM or POS terminal availability during business hours (09.00–17.00 daily) or successful completion of business activities such as passenger check-in.

When this feedback is gathered and collated for ongoing review, it can be used as input to design suitable measurement and reporting models and practices. SLAs must be understandable to all involved parties, which means that they must be written to be customer-friendly. Therefore, service-based or business-based metrics are more relevant for inclusion in SLAs. Operational metrics are most often used by IT service providers to manage conditions that support the success as defined by service-based or business-based metrics.

Notes

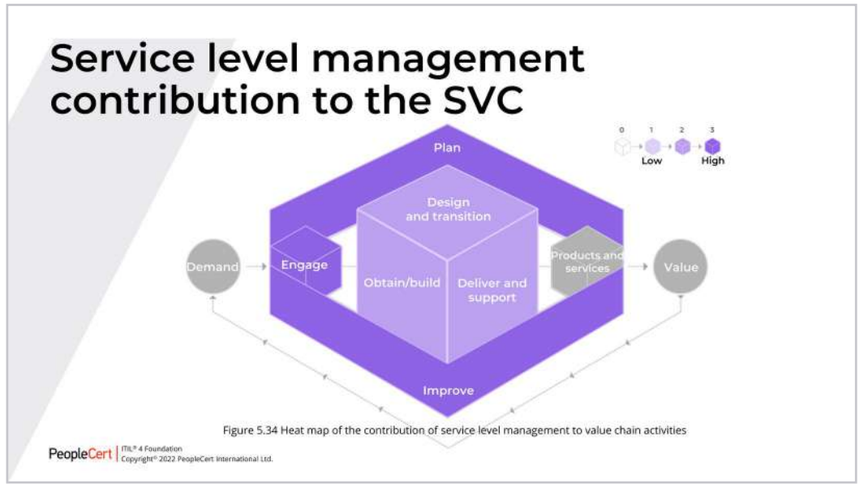


Figure 5.34 Heat map of the contribution of service level management to value chain activities

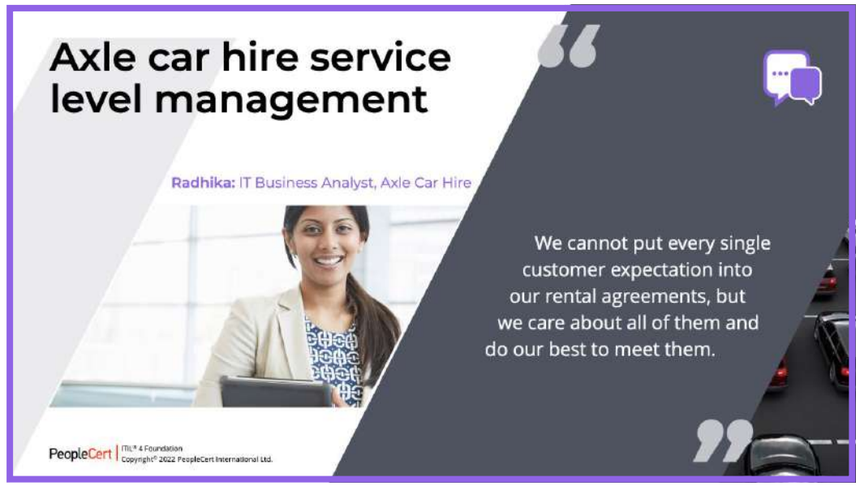
Figure 5.34 shows the contribution of service level management to the service value chain, with the practice being applied mainly to the plan and engage activities:

- **Plan** Service level management supports planning of the product and service portfolio and service offerings with information about the actual service performance and trends.
- **Improve** Service feedback from users, as well as requirements from customers, can be a driving force for service improvement.
- **Engage** Service level management ensures ongoing engagement with customers and users through feedback processing and continual service review.
- **Design and transition** The design and development of new and changed services receives input from this practice, both through interaction with customers and as part of the feedback loop in transition.
- **Obtain/build** Service level management provides objectives for components and service performance, as well as for measurement and reporting capabilities of the products and services.
- **Deliver and support** Service level management communicates service performance objectives to the operations and support teams and collects their feedback as an input for service improvement.

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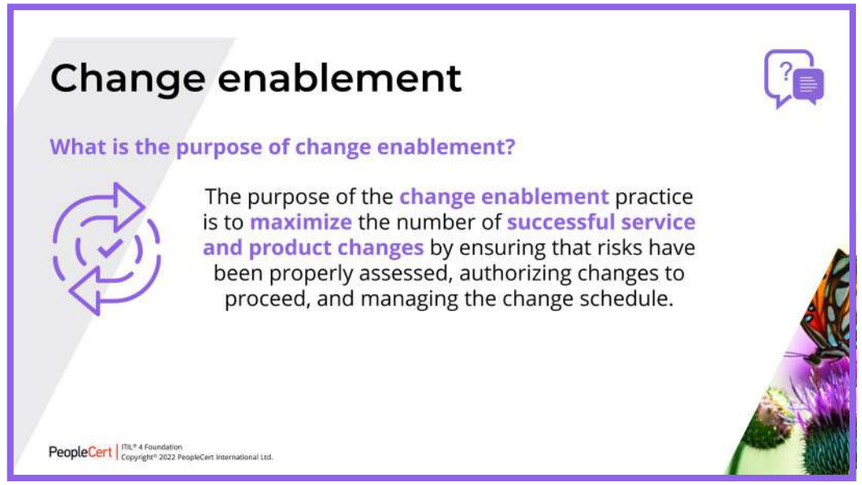


Axle Car Hire regularly gathers feedback from its customers to ensure its service level agreements are being met. The following slides outline how they go about gathering feedback.



Notes



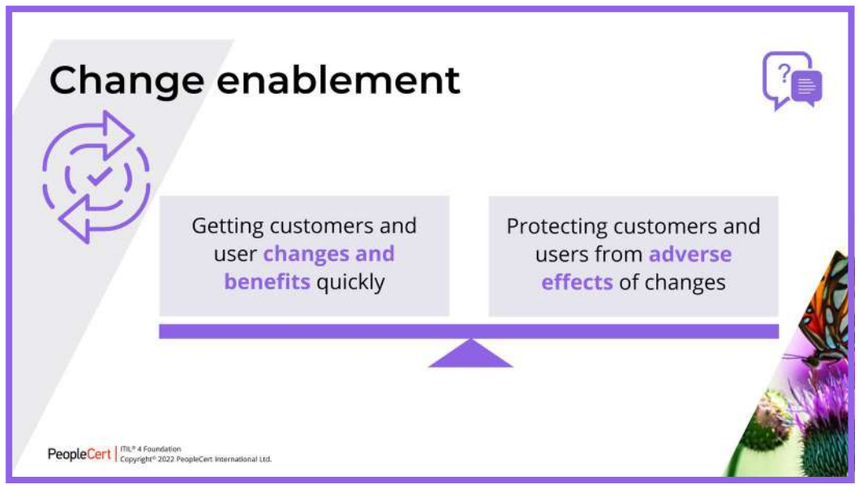


The purpose of the change enablement practice is to maximize the number of successful service and product changes by ensuring that risks have been properly assessed, authorizing changes to proceed, and managing the change schedule. Mostly, people would prefer not to change. Change often feels like it's being imposed on people, who will see it as complicating their lives and making their jobs harder, adding constraints and rules. A study from some time ago identified that 80% of the incidents that organizations in the study experienced were a result of unauthorized change. This tells us that change enablement can have a huge positive impact.

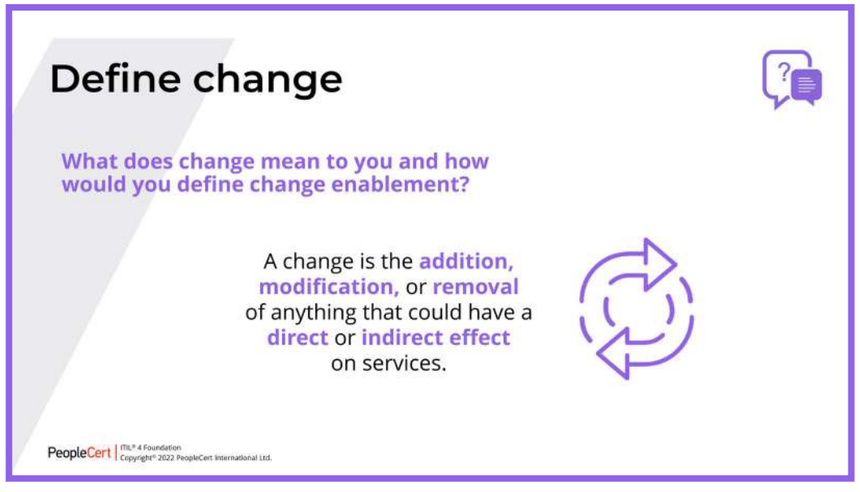
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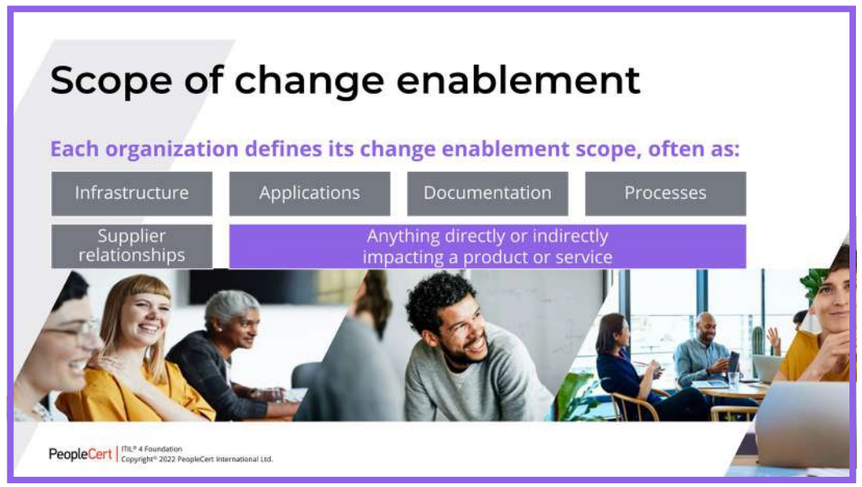


Change control must balance the need to make beneficial changes that will deliver additional value with the need to protect customers and users from the adverse effect of changes. All changes should be assessed by people who are able to understand the risks and the expected benefits; the changes must then be authorized before they are deployed. This assessment, however, should not introduce unnecessary delay.



A change is the addition, modification, or removal of anything that could have a direct or indirect effect on services.

Notes



What is in scope for the change enablement practice? For example, if you want to re-index a database, is that a change that requires a Request for Change (RFC) and to go through the change process, or is that just 'maintenance'? Notice that the suggested scope includes not just the infrastructure and applications involved but also things like documentation and processes. The idea here is to 'think holistically' and not, for example, make a change to the network infrastructure, and to neglect updating the network documentation.

Notes



The scope of change enablement is defined by each organization. It will typically include all IT infrastructure, applications, documentation, processes, supplier relationships, and anything else that might directly or indirectly impact a product or service. It is important to distinguish change enablement from organizational change management. Organizational change management manages the people aspects of changes to ensure that improvements and organizational transformation initiatives are implemented successfully.

Change enablement is usually focused on changes in products and services.

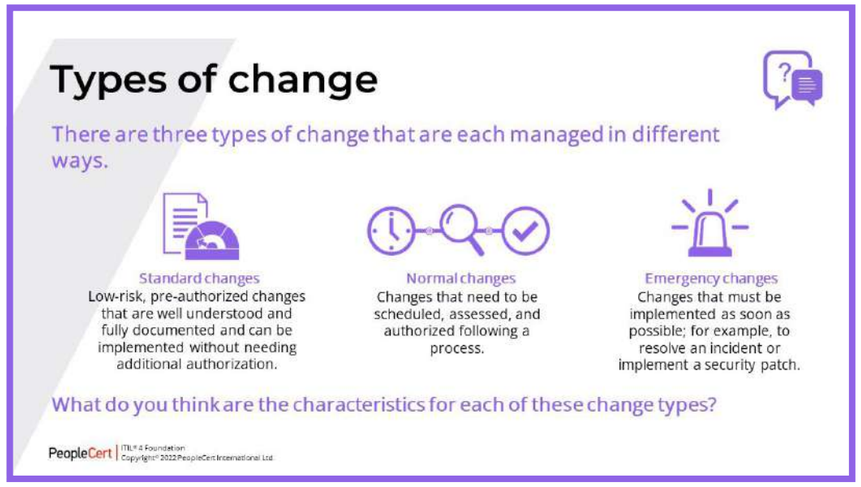
Notes



The person or group who authorizes a change is known as a change authority. It is essential that the correct change authority is assigned to each type of change to ensure that change enablement is both efficient and effective. In organizations responsible for core products, services, or critical processes, it is a common practice to decentralize change approval, making the peer review a top predictor of high performance.

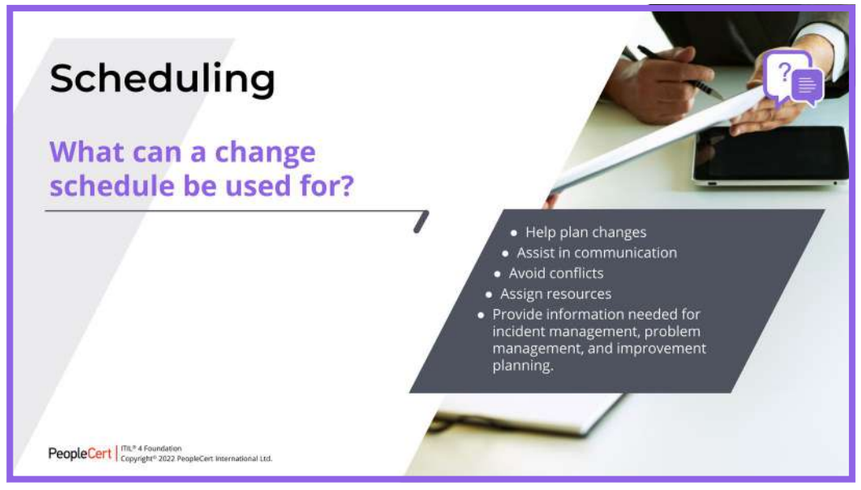
We can make routine changes much simpler if we recognize those with similar features, and delegate those for example service level management, with a clear set of rules. This clears space for change enablement to focus on the changes that really need their skills. Transferring that change authority, however, requires a very carefully stated set of rules and conditions so that we do not create an entirely new change enablement function somewhere else, but rather allow the other practice to simply process the thinking and standards that change enablement creates.

Notes



There are three types of change that are each managed in different ways:

- standard changes
- normal changes
- emergency changes.



The change schedule is used to help plan changes, assist in communication, avoid conflicts, and assign resources. It can also be used after changes have been deployed to provide information needed for incident management, problem management, and improvement planning.

Notes

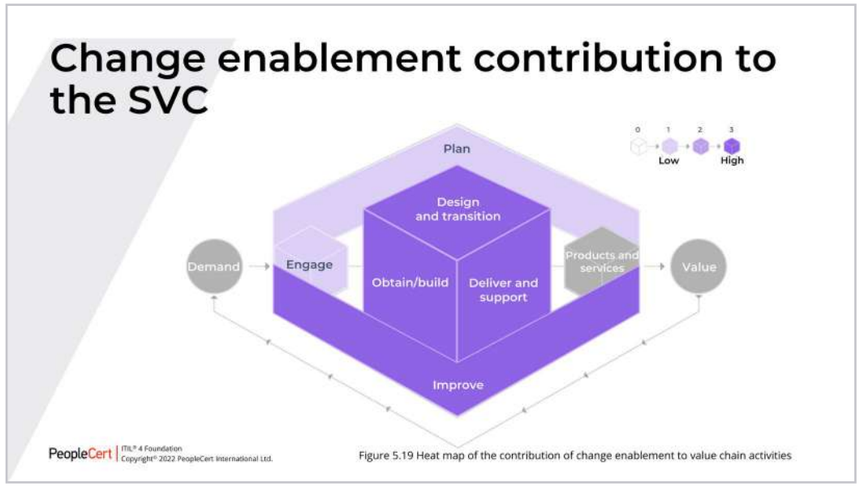


Figure 5.19 Heat map of the contribution of change enablement to value chain activities

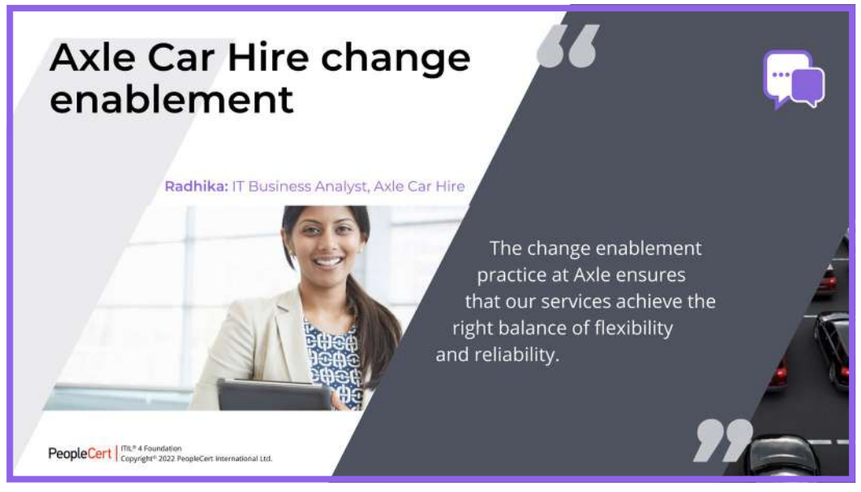
Figure 5.19 shows the contribution of change enablement to the service value chain, with the practice being involved in all value chain activities:

- **Plan** Changes to product and service portfolios, policies, and practices all require a certain level of control, and the change enablement practice is used to provide it.
- **Improve** Many improvements will require changes to be made, and these should be assessed and authorized in the same way as all other changes.
- **Engage** Customers and users may need to be consulted or informed about changes, depending on the nature of the change.
- **Design and transition** Many changes are initiated due to new or changed services. The change enablement activity is a major contributor to transition.
- **Obtain/build** Changes to components are subject to change enablement, whether they are built in-house or obtained from suppliers.
- **Deliver and support** Changes may have an impact on delivery and support, and information about changes must be communicated to personnel who perform this value chain activity. These people may also play a part in assessing and authorizing changes.

Notes



To ensure that Axle meets customer demands and capitalizes on opportunities, the organization needs to be positioned to enable change where needed. The following slides outline what Axle does to enable change.



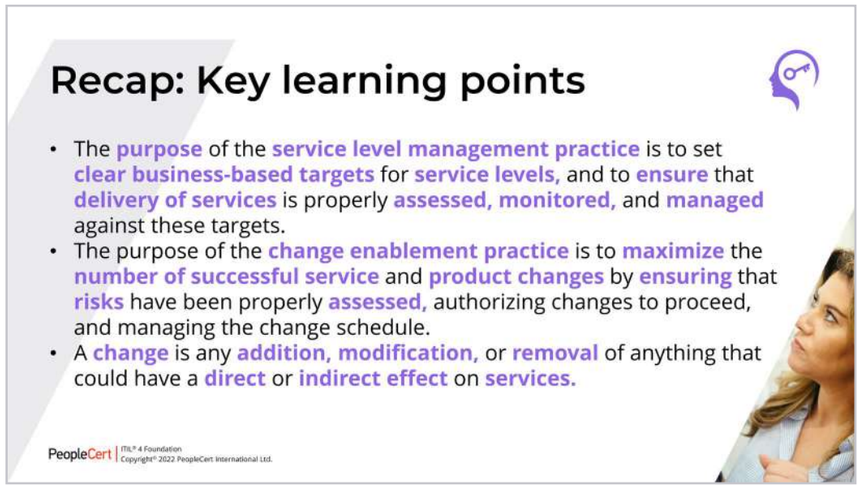
Notes





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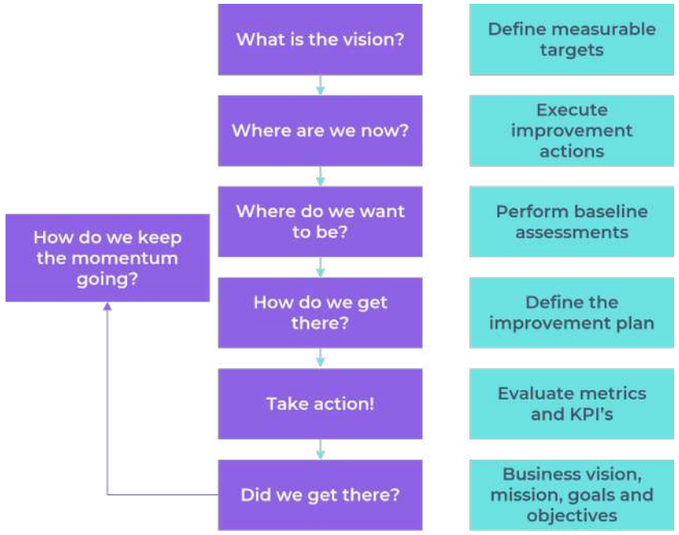
This slide outlines the key learning points that were covered in this topic.

Notes

Quiz

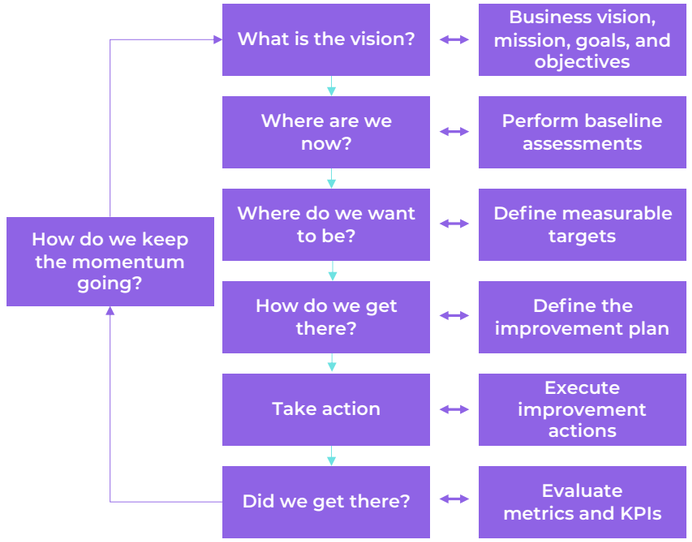
Questions:

1. Complete the missing words
   The purpose of the change enablement practice is to [?] the number of [?] service and product changes by ensuring that [?] have been properly assessed, authorizing changes to proceed, and managing the change schedule.
2. What skills should service desk staff have?
3. Complete the missing words
   The definition of an incident is an [?] interruption to a service or a [?] in the [?] of a service.
4. Which of these are the three phases of problem management?
   issue resolution
   problem identification
   problem control
   error control
   problem resolution.
5. In the continual improvement model, connect the elements to place the correct activities for each stage.



Answers:

1. The purpose of the change enablement practice is to **maximize** the number of **successful** service and product changes by ensuring that **risks** have been properly assessed, authorizing changes to proceed, and managing the change schedule
2. Service desk staff should display **all** these skills.
   - incident analysis and prioritization
   - effective communication
   - empathy
   - excellent customer service skills
   - emotional intelligence.
3. The definition of an incident is an **unplanned** interruption to a service or a **reduction** in the **quality** of a service.
4. The three distinct phases of problem management are
   issue resolution
   problem identification
   problem control
   error control
   problem resolution.
5. The image below shows the correct connection between the elements and the activities in the continual improvement model:



Module 6
Course review

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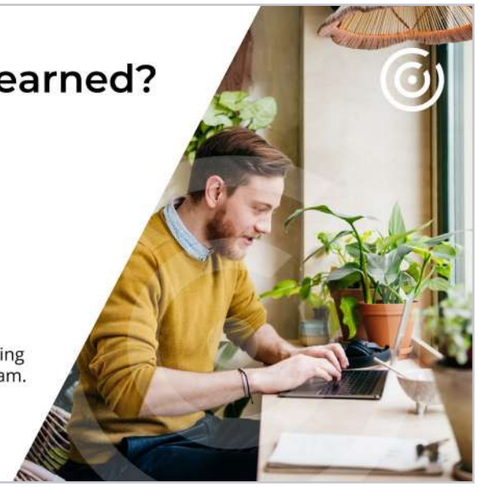


What have you learned?

Recap of key terms and concepts

- four dimensions of service management
- service value system
- service value chain
- guiding principles
- management practices

You will also have the opportunity to prepare for the certification by undertaking a sample test and/or an official mock exam.



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The four dimensions of service management

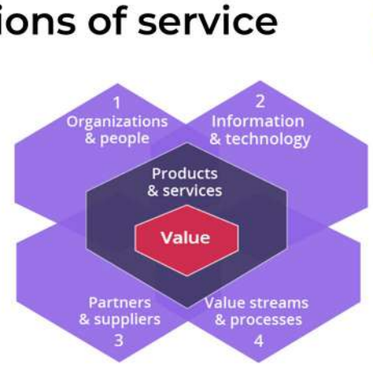


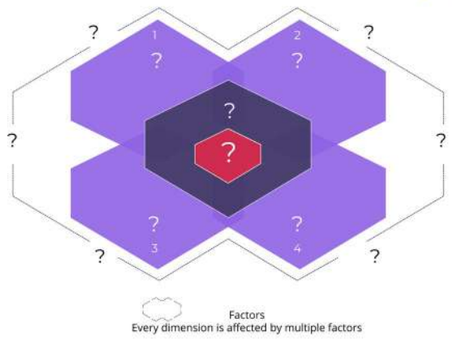
Figure 3.1 The four dimensions of service management

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The four dimensions of service management

What are the four dimensions of service management?

What are the functions of the four dimensions of service management?

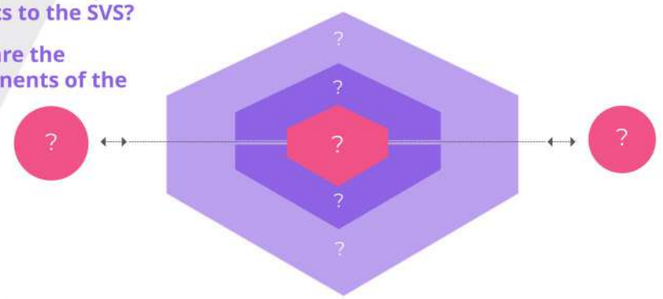


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The service value system

What are the inputs and outputs to the SVS?

What are the components of the SVS?



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Notes

Notes

Module 6
Course review

The service value system

The key **inputs** to the SVS are **opportunity** and **demand**.

The **outcome** of the SVS is **value**; that is, the perceived benefits, usefulness, and importance of something.

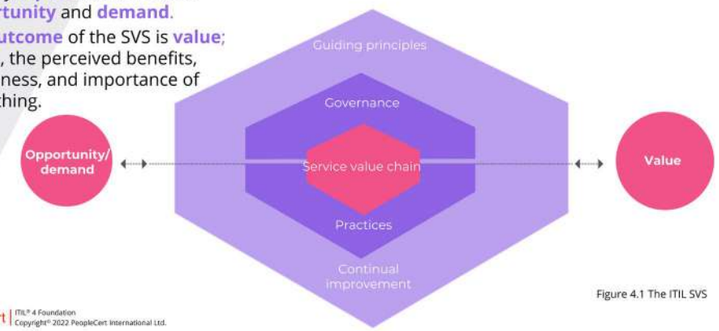


Figure 4.1 The ITIL SVS

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The service value chain

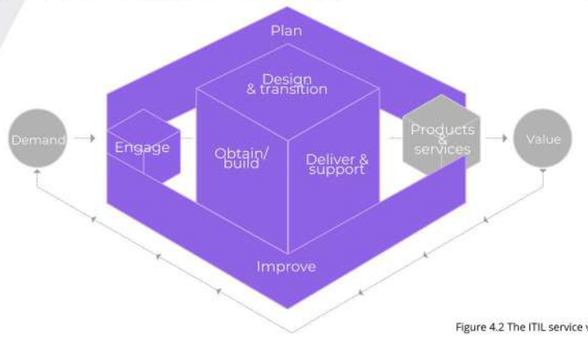


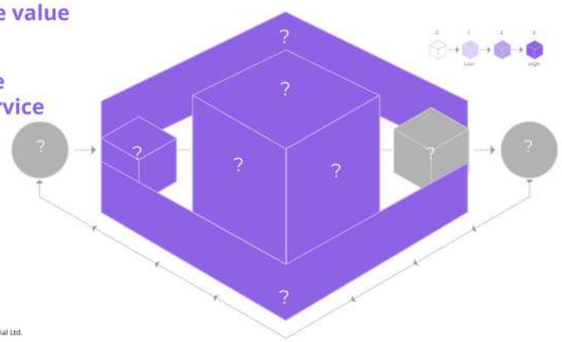
Figure 4.2 The ITIL service value chain

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The service value chain

What is the service value chain?

What activities are included in the service value chain?

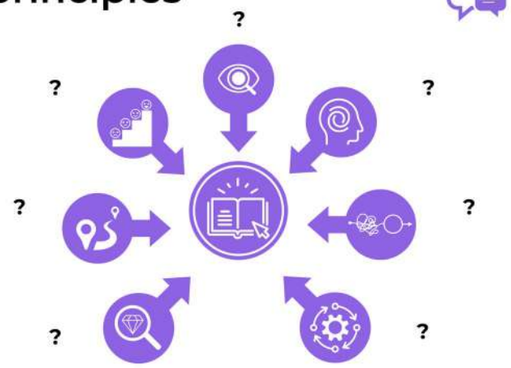


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The guiding principles

What are the seven guiding principles?

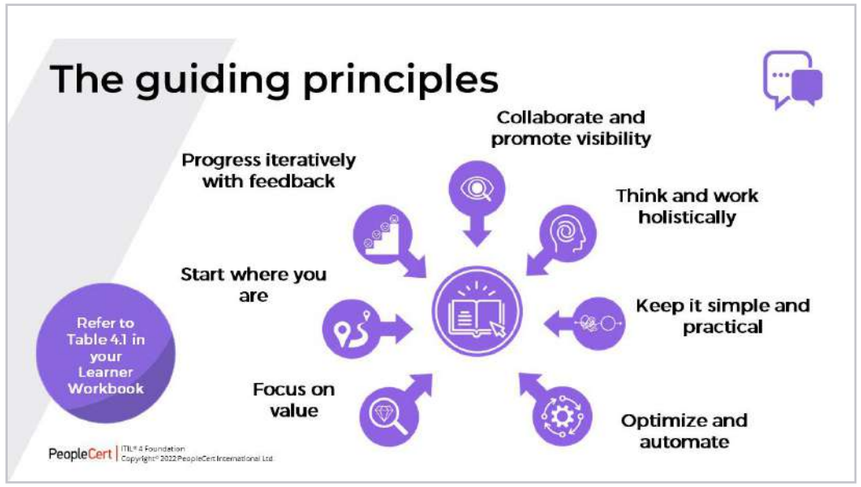
What is the purpose of them?

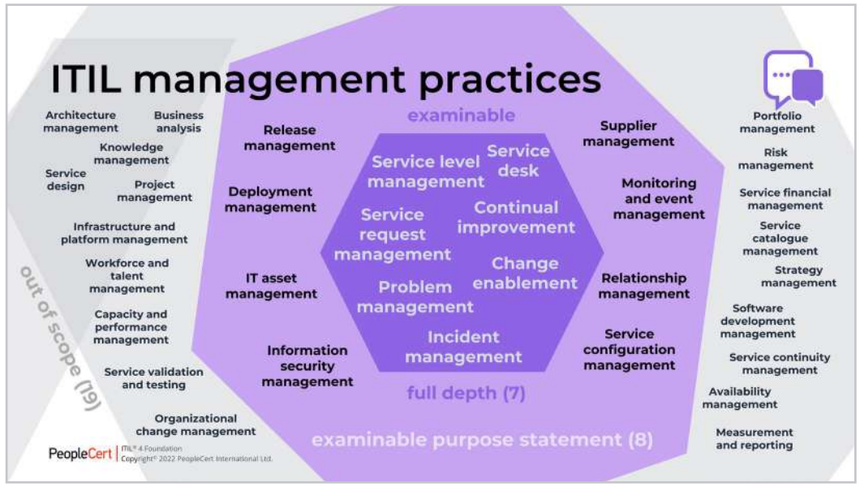


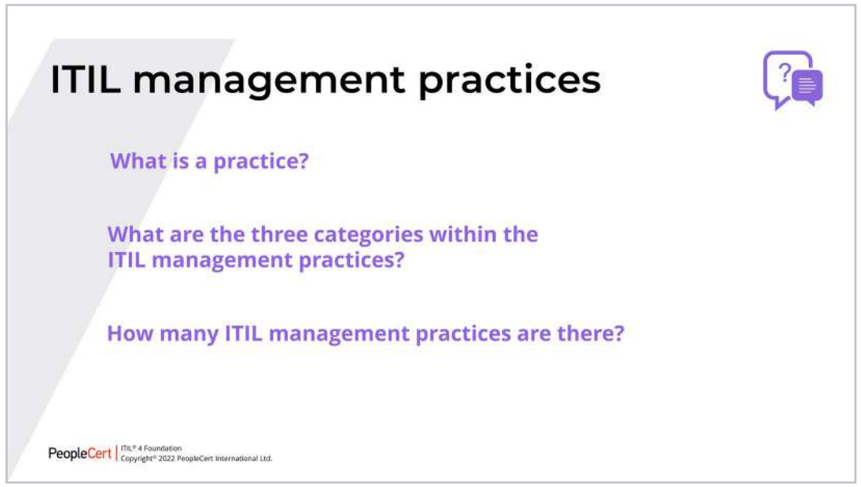
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Notes

Notes


The guiding principles
Collaborate and promote visibility
Progress iteratively with feedback
Think and work holistically
Start where you are
Keep it simple and practical
Refer to Table 4.1 in your Learner Workbook
Focus on value
Optimize and automate
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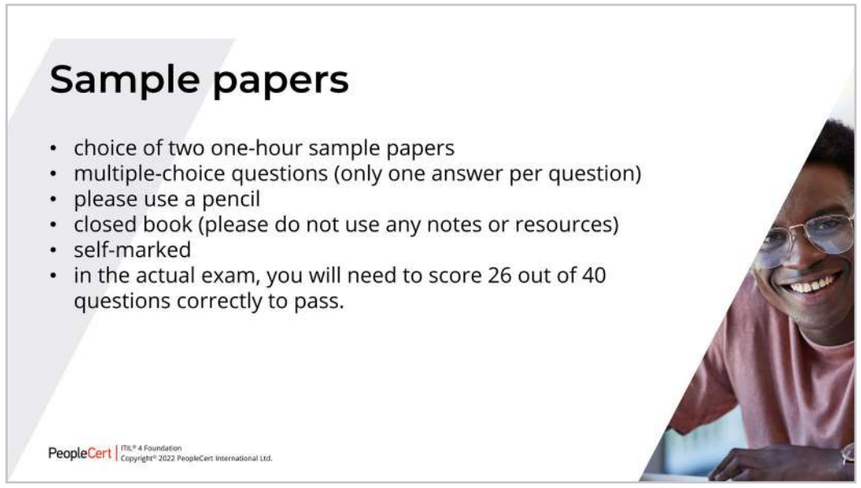

ITIL management practices
examinable
Architecture management
Business analysis
Knowledge management
Service design
Project management
Infrastructure and platform management
Workforce and talent management
Capacity and performance management
Service validation and testing
Organizational change management
Release management
Deployment management
IT asset management
Information security management
Service level management
Service desk
Service request management
Continual improvement
Problem management
Change enablement
Incident management
Supplier management
Monitoring and event management
Relationship management
Service configuration management
Portfolio management
Risk management
Service financial management
Service catalogue management
Strategy management
Software development management
Service continuity management
Availability management
Measurement and reporting
out of scope (19)
full depth (7)
examinable purpose statement (8)
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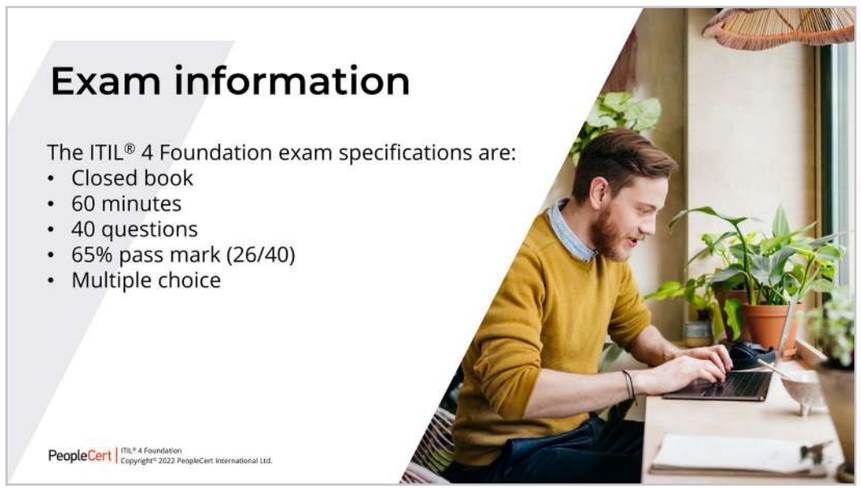

ITIL management practices
What is a practice?
What are the three categories within the ITIL management practices?
How many ITIL management practices are there?
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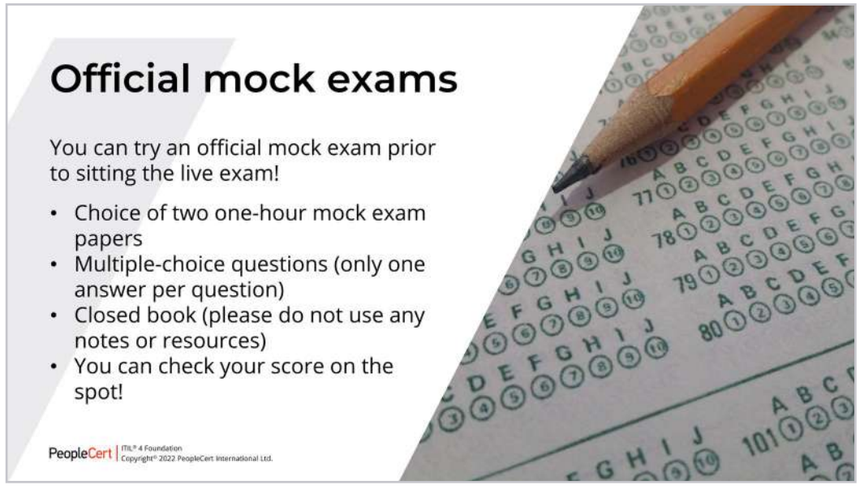
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What's next?





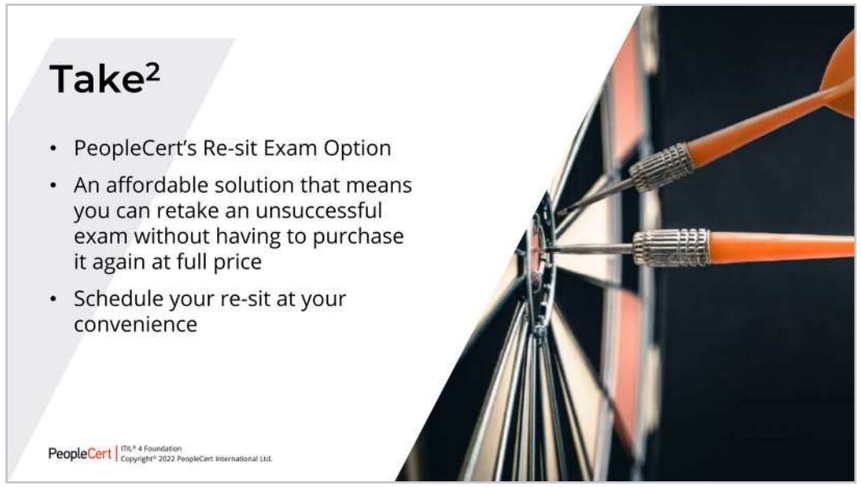
Notes



If you want more practice and would like to bolster your confidence before take the live exam, PeopleCert's Official Mock Exams offer you the opportunity to test your readiness for the Official Exam with full, timed and marked mock exams and a chance to you familiarise yourself with the exam interface.

Ask your training provider for more information or visit: https://www.peoplecert.org/help-and-support/FAQ#28C88E91C5E64BD59D3D0DE4EEBE5768 for more details.

Notes



For greater peace of mind, PeopleCert offers a an exam re-sit option.

Take² offers you the following:

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- allows you to retake an unsuccessful exam at a fixed, attractive rate, at a fraction of the cost, without having to purchase it again at full price
- allows you to schedule the re-sit exam when it best suits your schedule and take it from the comfort of your home or office

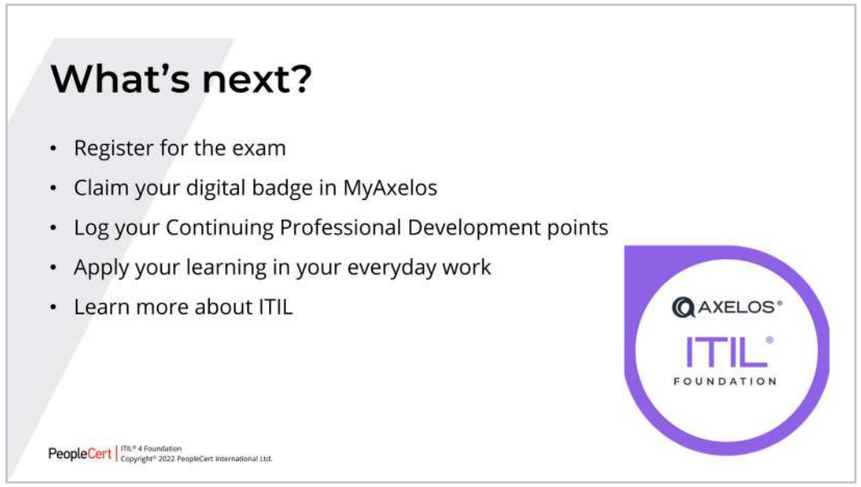
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Notes



This course will not be of value to you unless you put a plan action to use what you've learned. You are probably, and rightly so, concerned with passing the exam right now if you've signed up for it. But do take a moment to reflect and plan some quick wins for when you take this back to work. Ask yourself what you've learned that you would like to share with others in your organization. Take the time to write down your personal commitments as to how you will apply what you have learned when you go back to work. You'll be glad you did.

Notes



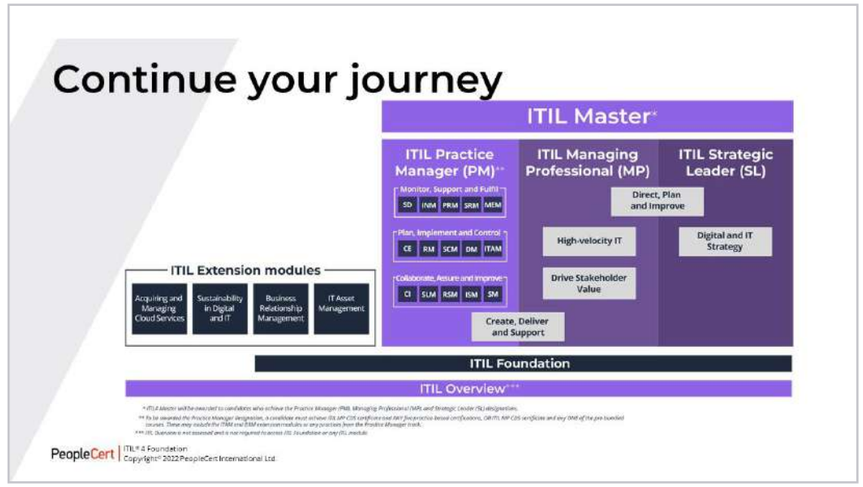
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Once you have successfully passed your exam, do not forget to claim your digital badge from MyAxelos. Just log in to your PeopleCert account to claim your free MyAxelos subscription. Your digital badge is your way of demonstrating achievement and certification in the digital age. You can use your digital badge across online platforms including your social media and your email signature to showcase your qualifications.

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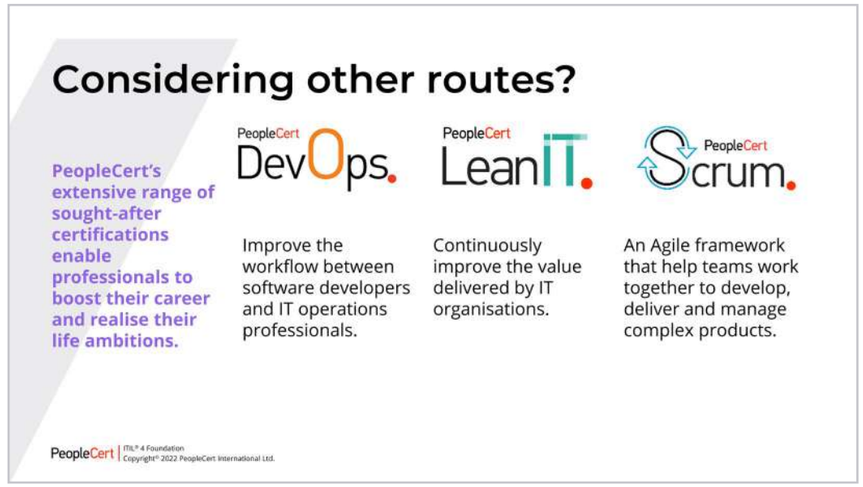
Finally, thanks for spending time learning with us!

Notes



Continue your ITIL journey beyond the ITIL 4 Foundation course.

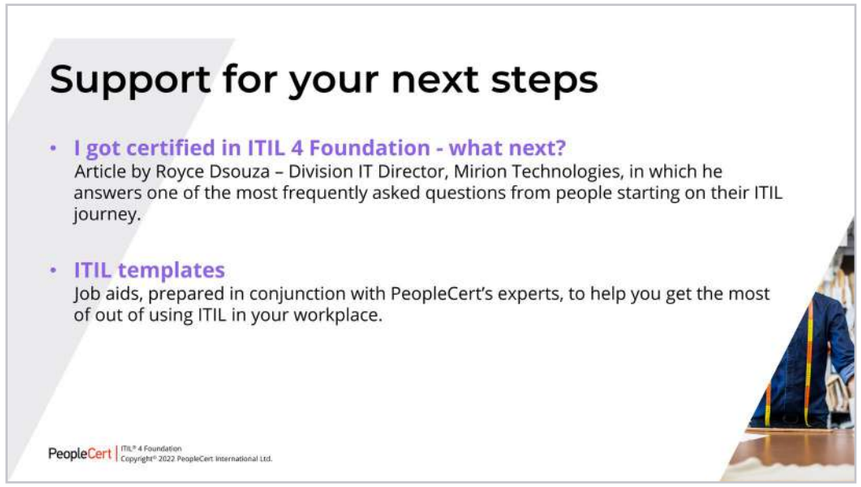
Here is the ITIL 4 certification scheme.



If you are considering diversifying your skill set, PeopleCert's portfolio of highly sought-after certifications may be of interest to you. Listed above are certifications that are perfect for the ITIL practitioner.

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Notes



Here are some recommended reading and useful tools to help you continue with your ITIL journey.

Redeem your complementary access to MyAxelos now for access to these resources and more by logging into your PeopleCert account to claim the free subscription.

Notes



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Notes



Here is your opportunity to give PeopleCert some feedback on the course materials. You can choose to email PeopleCert team directly or just scan the QR code with your phone and complete the survey.



Notes

Quiz

Questions:

1. Value is the [?] benefits, usefulness, and importance of something.
   A. Inherent
   B. Perceived
   C. Objective
   D. Marketing

2. An organization is a [?] that has its own functions with responsibilities, authorities, and relationships to achieve its objectives.
   A. Business or company
   B. For-profit or non-profit
   C. Person or group
   D. Community or society

3. Service relationships are established between two or more stakeholder organizations to [?].
   A. Provide goods and access to resources and perform actions
   B. Provide and consume services
   C. Conduct business
   D. Co-create value

4. Select the BEST answer. A consumer is an organization that [?] services.
   A. Uses
   B. Provides
   C. Authorises the budgets for
   D. Receives

5. Three specific roles are involved in service consumption: customers who [?], users who use services, and sponsors that [?].
   A. Pay for services, promote services
   B. Define requirements, authorise budgets
   C. Use services, define requirements and authorize budgets
   D. Define requirements and authorise budgets, promote services

6. Customers, users and sponsors
   A. Cannot be the same person or organization
   B. Cannot have the same expectations of services
   C. Can only be people and not organizations
   D. Can have different and even conflict service expectations

7. A [?] is a configuration of an organization's resources designed to offer value to a consumer.
   A. Service offering
   B. Service management system
   C. Service
   D. Product

8. A [?] is a means of enabling value co-creation by facilitating desired outcomes for customers.
   A. Service offering
   B. Service management system
   C. Service
   D. Product

9. A [?] is a description of one or more services designed to address the needs of a target consumer group.
   A. Service offering
   B. Service management system
   C. Service
   D. Product

Answers:

1. Value is the [?] benefits, usefulness, and importance of something.
   A. Inherent
   B. Perceived
   C. Objective
   D. Marketing

2. An organization is a [?] that has its own functions with responsibilities, authorities, and relationships to achieve its objectives.
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   C. Service
   D. Product

9. A [?] is a description of one or more services designed to address the needs of a target consumer group.
   A. Service offering
   B. Service management system
   C. Service
   D. Product

Appendix 1
Handouts/ activity sheets

Axle Car Hire

Key concepts of ITIL

Service value chain

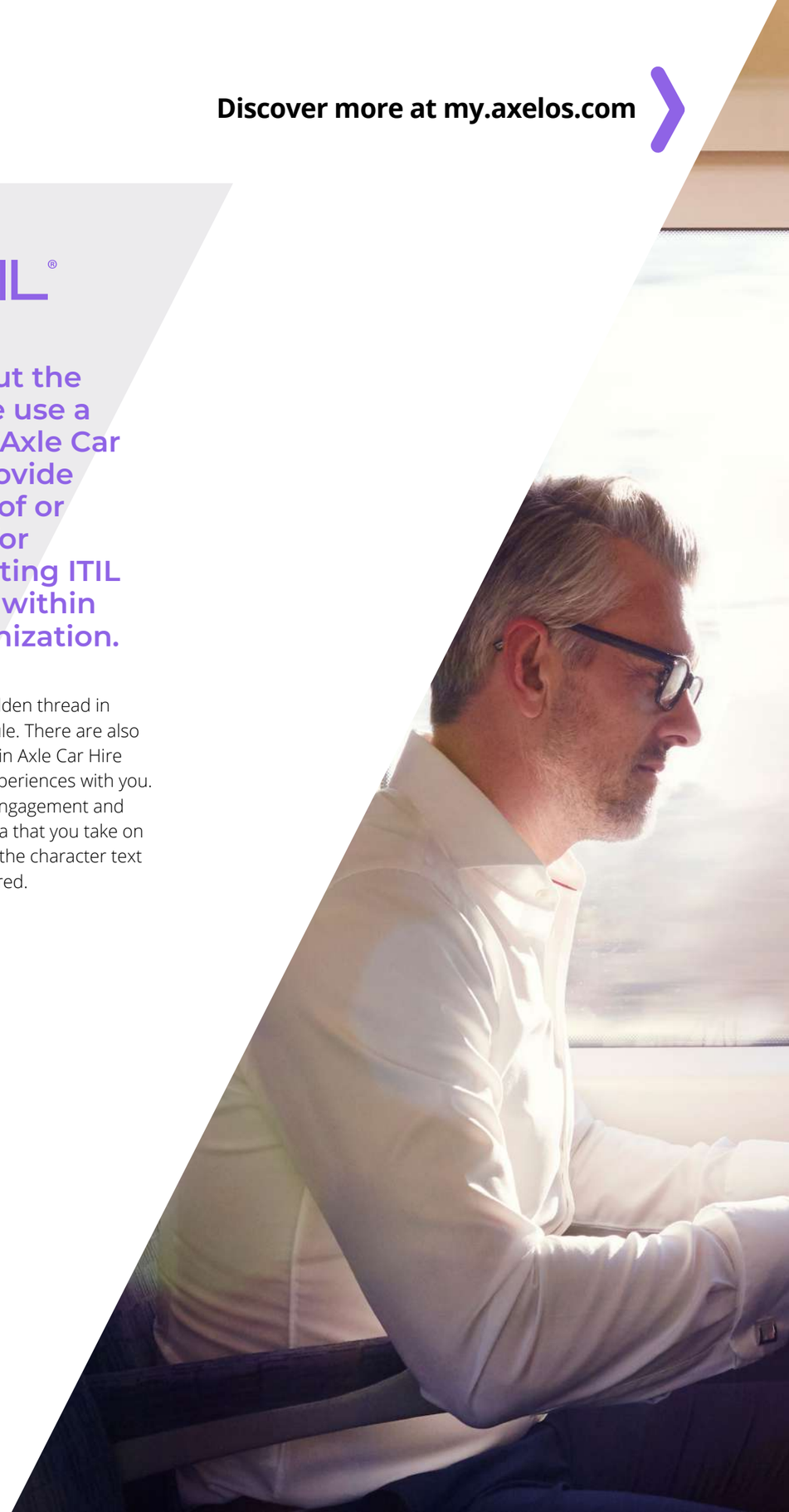
Value chain activities

Guiding principles

ITIL management practices

Throughout the course, we use a company 'Axle Car Hire' to provide examples of or the need for implementing ITIL processes within their organization.

This serves as a golden thread in almost every module. There are also several characters in Axle Car Hire who share their experiences with you. To maintain your engagement and fun, it is a good idea that you take on the role of or read the character text as and when required.



Axle Car Hire

Here is a bit of a background to Axle Car Hire and its situation:

Axle Car Hire is a global company, with its headquarters based in Seattle. Axle was formed 10 years ago and currently employs approximately 400 staff across Europe, the US, and Asia-Pacific. Initially, the company experienced strong growth and consistently high customer satisfaction ratings. For the first six years, repeat business accounted for around 30% of all bookings. Shareholders could expect handsome quarterly dividends. However, over the past four years, the company has experienced a downturn. Customer satisfaction ratings have consistently declined and repeat bookings are rare. Competitors are offering new and innovative options to traditional vehicle hire. Carpooling, ride-share, and driverless cars are big draws. Customers have also come to expect online and app interfaces as standard for the company's services. In this evolving market, Axle Car Hire faces an uncertain future.

The board is keen to improve customer satisfaction levels. They want to attract and retain customers and improve the company's bottom line. They have appointed a new CIO, Henri. Henri was chosen for his experience in digitalized services and his track record in successful, large-scale IT transformations. He understands the impact of digital service offerings, not only for customer satisfaction levels, but also for employee retention rates. Henri's strong background in ITIL and ITSM means that he values ITIL certification, and his hiring policy reflects this. Having worked with Design Thinking, DevOps, and Agile methodologies, he believes sustainable business requires a blended approach to ITSM.

Henri is keen to see how his team can redefine the car-hire experience and ensure that Axle Car Hire is the first choice for new and existing customers.

Appendix 1
Handouts / Activity sheets

Axle Car Hire employees

As previously mentioned, there are several members of this team who share their experiences throughout the course. They provide the real-world examples and an opportunity for learner discussion. This is another reason why it is a good idea for the learners to read out the text. Here are the four key team members:

Henri Is the new CIO of Axle Car Hire. He is a successful business executive who is prepared to shake things up. He believes in an integrated approach to ITSM.

Su Is the Axle Car Hire product manager for travel experience and has worked for Axle for the past five years. Su is smart, meticulous, and passionate about the environment.

Radhika Is the Axle Car Hire IT business analyst, and it is her job to understand the user requirements of Axle Car Hire staff and customers. She is inquisitive and energetic and strives to maintain a positive relationship with all her customers, both internal and external. Radhika works mostly on discovery and planning activities, rather than in IT operations. She asks a lot of questions and is great at spotting patterns and trends.

Marco Is the Axle Car Hire IT delivery manager. He is process-driven and continually references the ITIL framework to help him manage positive service relationships. However, Marco has had little exposure to a blended or collaborative approach to service management.



Henri,
CIO Axle Car Hire



Su,
Axle Car Hire Project Manager



Radhika,
Axle Car Hire IT Business Analyst



Marco,
Axle Car Hire IT Delivery Manager

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Key concepts of ITIL

PESTLE analysis

Based on your own organization, conduct a PESTLE analysis on a service provider or potential provider. You do not need to disclose confidential details.

Be prepared to share your analysis with the group. Research the concept of PESTLE if required. You can make notes in the section below.

Service value chain

Draw a high-level value stream showing how value is arrived at from the initial opportunity or demand.

You can use reference image, Figure 4.2 The ITIL service value chain, repeated here and relevant appendices from the ITIL Official Book to develop this.

Try to apply the activities within the stream to situations in your own context and based on your own experiences.

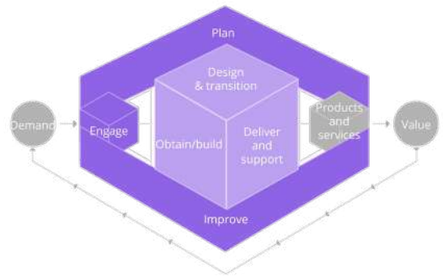


Figure 4.2 The ITIL service value chain

Do something now

Do something now

Service value chain

Read, discuss, and present

Read, discuss, and create a presentation on the six value chain activities:

- plan
- improve
- engage
- design and transition
- obtain/build
- deliver and support.

In your presentation, include what each activity means, the specific inputs and an example of how this could relate to your business/role.



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You can create your work in either Microsoft Word, PowerPoint, or flipchart format (depending on the delivery method).

If in a classroom, you must be prepared to speak to the rest of the group regarding your findings and how it could relate to your business/role. Each presentation will last for five minutes per value chain activity. You can use the area below to make notes. You will find resources on each value chain activity on the following pages.

You have 10 minutes to research and prepare materials.

Do something now

Appendix 1
Handouts / Activity sheets

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Value chain activities

Plan

The key **inputs** to this activity are:

- policies, requirements, and constraints provided by the organization's governing body
- consolidated demands and opportunities provided by engage
- value chain performance information, improvement status reports, and improvement initiatives from improve
- knowledge and information about new and changed products and services from design and transition, and obtain/build
- knowledge and information about third-party service components from engage.

The key **outputs** of this activity are:

- strategic, tactical, and operational plans
- portfolio decisions for design and transition
- architectures and policies for design and transition
- improvement opportunities for improve
- a product and service portfolio for engage
- contract and agreement requirements for engage.

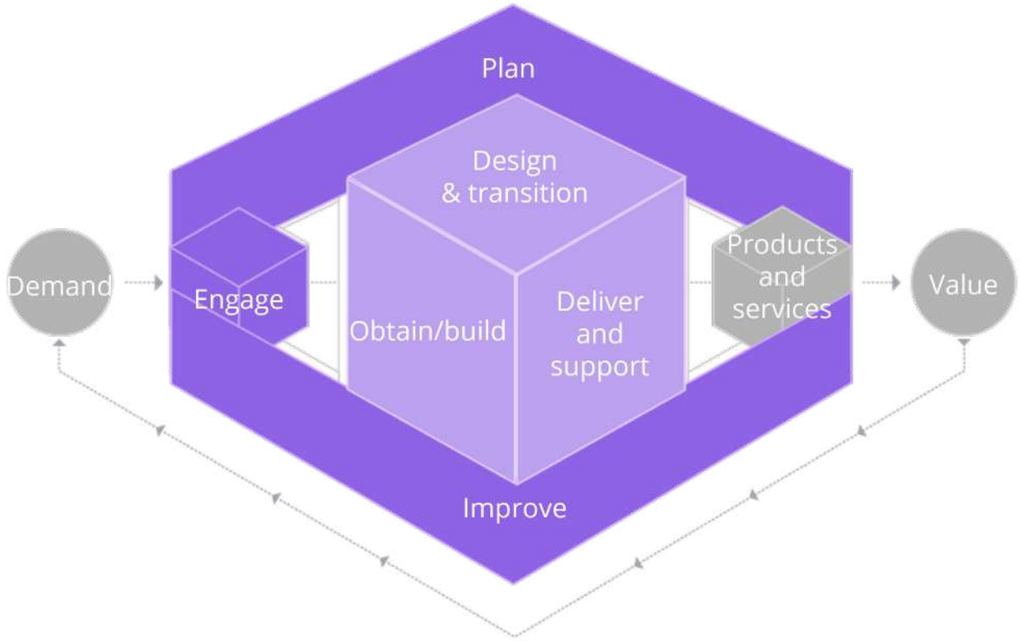


Figure 4.2 The ITIL service value chain



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

Appendix 1
Handouts / Activity sheets

Value chain activities

Improve

The key **inputs** to this activity are:

- product and service performance information provided by deliver and support
- stakeholders' feedback provided by engage
- performance information and improvement opportunities provided by all value chain activities
- knowledge and information about new and changed products and services from design and transition, and obtain/build
- knowledge and information about third-party service components from engage.

The key **outputs** of this activity are:

- improvement initiatives for all value chain activities
- value chain performance information for plan and the governing body
- improvement status reports for all value chain activities
- contract and agreement requirements for engage
- service performance information for design and transition.

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The purpose of the improve value chain activity is to ensure continual improvement of products, services, and practices across all value chain activities and the four dimensions of service management.

Value chain activities

Engage

The key **inputs** to this activity are:

- a product and service portfolio provided by plan
- high-level demand for services and products provided by internal and external customers
- detailed requirements for services and products provided by customers
- requests and feedback from customers
- incidents, service requests, and feedback from users
- information on the completion of user support tasks from deliver and support
- marketing opportunities from current and potential customers and users
- cooperation opportunities and feedback provided by partners and suppliers
- contract and agreement requirements from all value chain activities.

The key **outputs** of this activity are:

- consolidated demands and opportunities for plan
- product and service requirements for design and transition
- user support tasks for deliver and support
- improvement opportunities and stakeholders' feedback for improve
- change or project initiation requests for obtain/build
- contracts and agreements with external and internal suppliers and partners for design and transition, and obtain/build
- knowledge and information about third-party service components for all value chain activities
- service performance reports for customers.

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The purpose of the engage value chain activity is to provide a good understanding of stakeholder needs, transparency, and continual engagement and good relationships with all stakeholders.

Value chain activities

Design and transition

The key **inputs** to this activity are:

- portfolio decisions provided by plan
- architectures and policies provided by plan
- product and service requirements provided by engage
- improvement initiatives provided by improve
- improvement status reports from improve
- service performance information provided by deliver and support, and improve
- service components from obtain/build
- knowledge and information about third-party service components from engage
- knowledge and information about new and changed products and services from obtain/build
- contracts and agreements with external and internal suppliers and partners provided by engage.

The key **outputs** of this activity are:

- requirements and specifications for obtain/build
- contract and agreement requirements for engage
- new and changed products and services for deliver and support
- knowledge and information about new and changed products and services to all value chain activities
- performance information and improvement opportunities for improve.

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The purpose of the design and transition value chain activity is to ensure that products and services continually meet stakeholder expectations for quality, costs, and time to market.

Value chain activities

Obtain/build

The key **inputs** to this activity are:

- architectures and policies provided by plan
- contracts and agreements with external and internal suppliers and partners provided by engage
- goods and services provided by external and internal suppliers and partners
- requirements and specifications provided by design and transition
- improvement initiatives provided by improve
- improvement status reports from improve
- change or project initiation requests provided by engage
- change requests provided by deliver and support
- knowledge and information about new and changed products and services from design and transition
- knowledge and information about third-party service components from engage.

The key **outputs** of this activity are:

- service components for deliver and support
- service components for design and transition
- knowledge and information about new and changed service components to all value chain activities
- contract and agreement requirements for engage
- performance information and improvement opportunities for improve.

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The purpose of the obtain/build value chain activity is to ensure that service components are available when and where they are needed, and meet agreed specifications.

Value chain activities

Deliver and support

The key **inputs** to this activity are:

- new and changed products and services provided by design and transition
- service components provided by obtain/build
- improvement initiatives provided by improve
- improvement status reports from improve
- user support tasks provided by engage
- knowledge and information about new and changed service components and services from design and transition, and obtain/build
- knowledge and information about third-party service components from engage.

The key **outputs** of this activity are:

- services delivered to customers and users
- information on the completion of user support tasks for engage
- product and service performance information for engage and improve
- improvement opportunities for improve
- contract and agreement requirements for engage
- change requests for obtain/build
- service performance information for design and transition.

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The purpose of the deliver and support value chain activity is to ensure that services are delivered and supported according to agreed specifications and stakeholders' expectations.

Guiding principles

Task

Using the Table 4.1 (Official Book) overview of the guiding principles on the following page, think about a project or similar situation at work where you applied or could have applied these principles.

- Consider how it was or could have been beneficial.
- What were the results in events where the principles were applied?

If in a classroom, be prepared to discuss your findings with the group to share knowledge, experiences, and practical applications.

You have 10 minutes to prepare your example.

Do something now

Appendix 1
Handouts / Activity sheets

Guiding principle	Description
Focus on value	Everything that the organization does must result either directly or indirectly, to value for the stakeholders. The focus on value principle encompasses many perspectives, including the experience of customers and users.
Start where you are	Do not start from scratch and build something new without considering what is already available to be leveraged. There is likely to be a great deal in the current services, processes, programmes, projects, and people that can be used to create the desired outcome. The current state should be investigated and observed directly to ensure that it is fully understood.
Progress iteratively with feedback	Do not attempt to do everything at once. Even small initiatives must be accomplished iteratively. By organizing work into smaller, more manageable chunks that can be executed and completed in a timely manner, it is easier to maintain a sharper focus. Using feedback before, throughout, and after each iteration will ensure that actions are focused and appropriate, even if circumstances change.
Collaborate and promote visibility	Working together across boundaries will produce results that have a greater buy-in, more relevance to the objectives, and an increased likelihood of long-term success. Achieving objectives requires information, understanding, and trust. The work and its consequences should be visible, hidden agendas avoided, and information shared to the greatest degree possible.
Think and work holistically	No service or element used to provide a service, works in a vacuum. The outcomes achieved by the service provider and service consumer will suffer unless the organization works on the service as a whole, not just on its parts. Results are delivered to internal and external customers by the effective and efficient management and dynamic integration of information, technology, organization, people, practices, partners, and agreements, which should all be coordinated to provide a defined value.
Keep it simple and practical	If a process, service, action or metric fails to provide value or produce a useful outcome, eliminate it. In a process or procedure, use the minimum number of steps necessary to accomplish the objective(s). Always use outcome-based thinking to produce practical solutions that deliver results.
Optimize and automate	Resources of all types, particularly HR, should be used to their best effect. Eliminate anything that is wasteful and use technology to achieve objectives. Human intervention should only happen where it contributes value.

Table 4.1 Overview of the guiding principles

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Guiding principles

Case studies

This section will explore various case studies to illustrate how the guiding principles can be applied.

Please answer the questions at the end of each case study and make notes in the space provided.



Case study 1

The sales director and managers of a shoe company identify the need for a new website that allows customers to design and order personalized shoes. The sales director and business relationship manager (BRM) discuss the new website and agree to investigate the value, outcomes, costs, and risks to see if it is feasible.

The creation of the new service is discussed, and the costs and risks of various approaches are identified. This opportunity is prioritized above other work that is being done to decide if the resources are available to perform it. The potential costs and risks of various approaches are discussed, and input is provided to portfolio management.

The potential costs and risks of various approaches are discussed, and input is provided to portfolio management. The sales director and BRM discuss the expected value, outcomes, costs, and risks for the new service and agree that they want to continue.

The project manager and development manager start to plan the work needed to create the new service. People are assigned to do the necessary work.

The software development team build a backlog, identify the minimum viable product, and develop sufficient functionality that the business can review.

- *Which guiding principles are (or can be) applied here?*
- *How will these principles enable value for customers and other stakeholders?*

Do something now

Appendix 1
Handouts / Activity sheets

Element in case study	Guiding principle	Rationale

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Case study 2

Several IT services need to be updated to meet new regulatory requirements. The new requirements are discussed, and it is agreed that a project will be created to manage the implementation.

Planning begins. People are assigned to the work. A communication plan is created and all staff who need to be involved are notified.

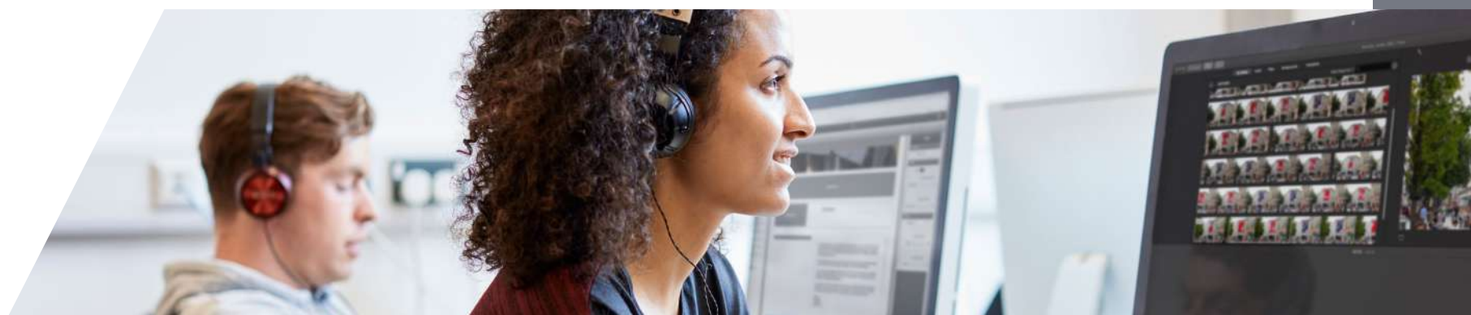
Each software team manages a backlog and develops code for the areas assigned to them. Each team also develops tests for inclusion in the automated pipeline. All code is automatically integrated and tested twice a day, ensuring that code written by different teams works together.

The deployment of new software is triggered as soon as it is ready. Individual change requests are not required for this, as the risk assessment was performed earlier. Moreover, the automation ensures that the code is deployed exactly as planned. Configuration data is used to drive the deployment, so a separate activity to update the data is not needed.

- *Which guiding principles are (or can be) applied here?*
- *How will these principles enable value for customers and other stakeholders?*

Do something now

Element in case study	Guiding principle	Rationale



Appendix 1
Handouts / Activity sheets

ITIL management practices

Terms and definition matching activity

Match the terms and definitions together. If in a classroom, you can discuss this with other learners.

However, try not to refer to any notes or publications.

To help with your learning, you can draw lines to connect the terms with their definition.

Do something now



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IT asset	An unplanned interruption to a service or reduction in the quality of a service.
Practice	A version of a service or other configuration item, or a collection of configuration items, that is made available for use.
Configuration item	A request from a user or a user's authorized representative that initiates a service action which has been agreed as a normal part of service delivery.
Event	Any financially valuable component that can contribute to the delivery of an IT product or service.
Release	A solution that reduces or eliminates the impact of an incident or problem for which a full resolution is not yet available. Some workarounds reduce the likelihood of incidents.
Request	A cause, or potential cause, of one or more incidents.
Incident	Any component that needs to be managed in order to deliver an IT service.
Problem	Any change of state that has significance for the management of a service or other configuration item (CI). Events are typically recognized through notifications created by an IT service, CI, or monitoring tool.
Workaround	One or more metrics that define expected or achieved service quality.
Service level management	The addition, modification, or removal of anything that could have a direct or indirect effect on services.
Service level agreement	A set of resources designed for performing work or accomplishing an objective.
Change enablement	A documented agreement between a service provider and a customer that identifies both the services required and the expected level of service.

Appendix 1
Handouts / Activity sheets

ITIL management practices

Case study

An error in third-party software creates issues for a user.

In your groups, read the case study and discuss the following:

Which practices would you apply when addressing this issue?

How would these practices be best used to guarantee success?

Record in detail your decisions and rationale for the above and be prepared to present your thoughts and findings to the rest of the group.

In this example, a user discovers an issue when using an application. The vendor has a patch available and this needs to be installed to rectify the situation. Note that this incident takes a very different path through the service value chain and is supported by a different balance of practices than the previous incident.

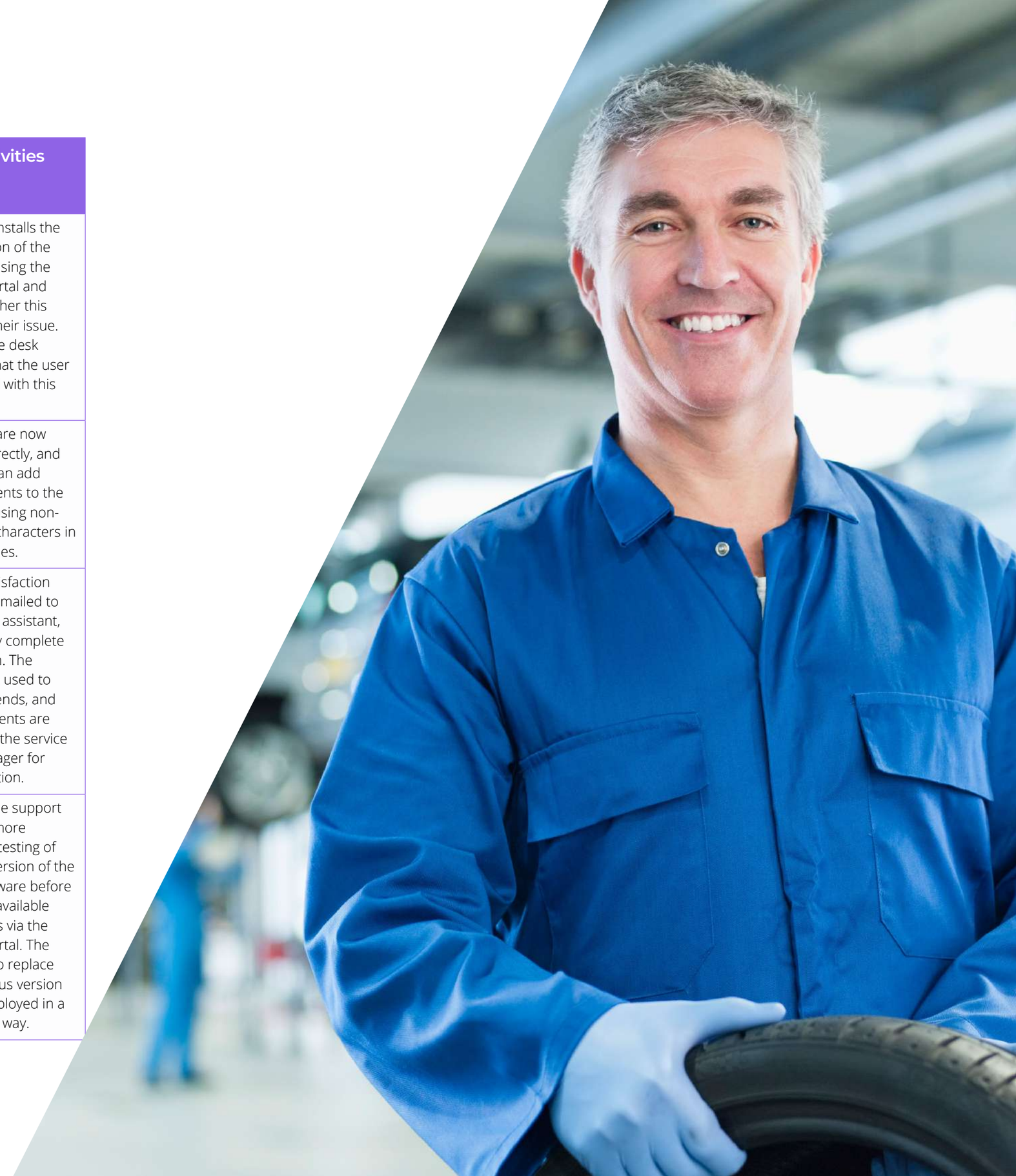
Do something now

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Value chain activity Input/outcomes	Practices	Roles	Activities
Demand		Admin assistant	An admin assistant in an office is unable to enter an appointment in their calendar due to a bug in the software they are using. The software will not allow a non-standard character to be used in a room name.
Engage	Service desk, incident management	Admin assistant, service desk agent	The admin assistant phones the service desk and describes the issue. It is agreed that this is a priority 3 incident, and the admin assistant is notified of the expected resolution time. Information about this incident is logged by the service desk agent.
Deliver and support	Incident management	Service desk agent	The service desk agent researches the vendor website and discovers that this particular issue is resolved in the latest version of the client software.
Deliver and support,obtain/ build, engage	Incident management, service request management, deployment management, service validation and testing	Second-line support, admin assistant	Second-line support contacts the user andarranges for them to test the new version of theclient software to see if this resolves their issue. They then add this version to the service portal so that the user can instal it.

Appendix 1
Handouts / Activity sheets

Value chain activity Input/outcomes	Practices	Roles	Activities
Deliver and support	Incident management, service validation and testing, service request management	Admin assistant, service desk	The user installs the new version of the software using the service portal and tests whether this resolves their issue. The service desk ensures that the user is satisfied with this solution.
Value		Admin assistant	The software now works correctly, and the user can add appointments to the calendar using non-standard characters in room names.
Engage, improve	Service desk, incident management, continual improvement	Admin assistant, service desk manager	A brief satisfaction survey is emailed to the admin assistant, which they complete and return. The scores are used to identify trends, and the comments are passed to the service desk manager for consideration.
Improve	Continual improvement, service validation and testing, service request management, release management, deployment management	Second-line support	Second-line support achieves more extensive testing of the new version of the client software before making it available to all users via the service portal. The upgrade to replace the previous version is then deployed in a controlled way.



Appendix 2
Resources

Candidate syllabus and index

Sample papers

Glossary

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Candidate syllabus and index

1. Introduction

The ITIL 4 Foundation qualification is intended to introduce candidates to the management of modern IT-enabled services, to provide them with an understanding of the common language and key concepts, and to show them how they can improve their work and the work of their organization with ITIL 4 guidance. Furthermore, the qualification will provide the candidate with an understanding of the ITIL 4 service management framework and how it has evolved to adopt modern technologies and ways of working.

The ITIL 4 Foundation examination is intended to assess whether the candidate can demonstrate sufficient recall and understanding of the ITIL 4 service management framework, as described in the syllabus below, to be awarded the ITIL 4 Foundation qualification. The ITIL 4 Foundation qualification is a prerequisite for the ITIL 4 higher level qualifications, which assess the candidate's ability to apply their understanding of the relevant parts of the ITIL framework in context.

2. Exam Overview

Material allowed	None	This is a 'closed book' exam. The ITIL Foundation Official Book, ITIL 4 edition, should be used for study, but is **NOT** permitted to be used in the exam.
Exam duration	60 minutes	Candidates taking the exam in a language that is not their native or working language may be awarded 25% extra time, i.e. 75 minutes in total.
Number of marks	40 marks	There are 40 questions, each worth 1 mark. There is no negative marking.
Provisional Pass mark	26 marks	You will need to get 26 questions correct (65%) to pass the exam.
Level of thinking	Bloom's levels 1 & 2	"Bloom's level" describes the type of thinking needed to answer the question. For Bloom's level 1 questions, you need to **recall** information about the ITIL 4 service management framework. For Bloom's 2 questions, you need to show **understanding** of these concepts.
Question types	Classic, Negative, Missing word, & List	The questions are all 'multiple choice'. For the 'standard' questions, you have a question and four answer options. 'Negative' questions are 'standard' question in which the stem is negatively worded. For the 'missing word' questions, there is a sentence with a word missing and you have to select the missing word from four options. For the 'list' questions, there is a list of four statements and you have to select two correct statements from the list.

3. Question Types

All 40 questions are Objective Test Questions (OTQs), which present four options from which one option is selected. Distractors (wrong answers) are options that candidates with incomplete knowledge or skill would be likely to choose. These are generally plausible responses relating to the syllabus area being examined. Question styles used within this type are: 'Standard', 'Missing word', 'List'(2 correct items), and, exceptionally, 'Negative' standard OTQ.

Example 'Standard' OTQ:
Which is a source of best practice?
A. Q
B. P
C. R
D. S

Example 'List' OTQ:
Which statement about service asset and configuration management is **CORRECT**?

1. It does Q
2. It does P
3. It does R
4. It does S

E. 1 and 2
F. 2 and 3
G. 3 and 4
H. 1 and 4

NOTE: Two of the list items are correct. List style questions are never negative.

Example 'Missing word' OTQ
Identify the missing word(s) in the following sentence.

A [?] defines requirements for services and takes responsibility for outcomes from service consumption.

A. Role Q
B. Role P
C. Role R
D. Role S

Example 'Negative' standard OTQ:
Which is **NOT** a defined area of value?
A. Q
B. P
C. R
D. S

NOTE: Negative questions are only used, as an exception, where part of the learning outcome is to know that something is not done or should not occur.

Please see the sample paper for an example of the exam format and content.

Appendix 2
Resources

4. Syllabus

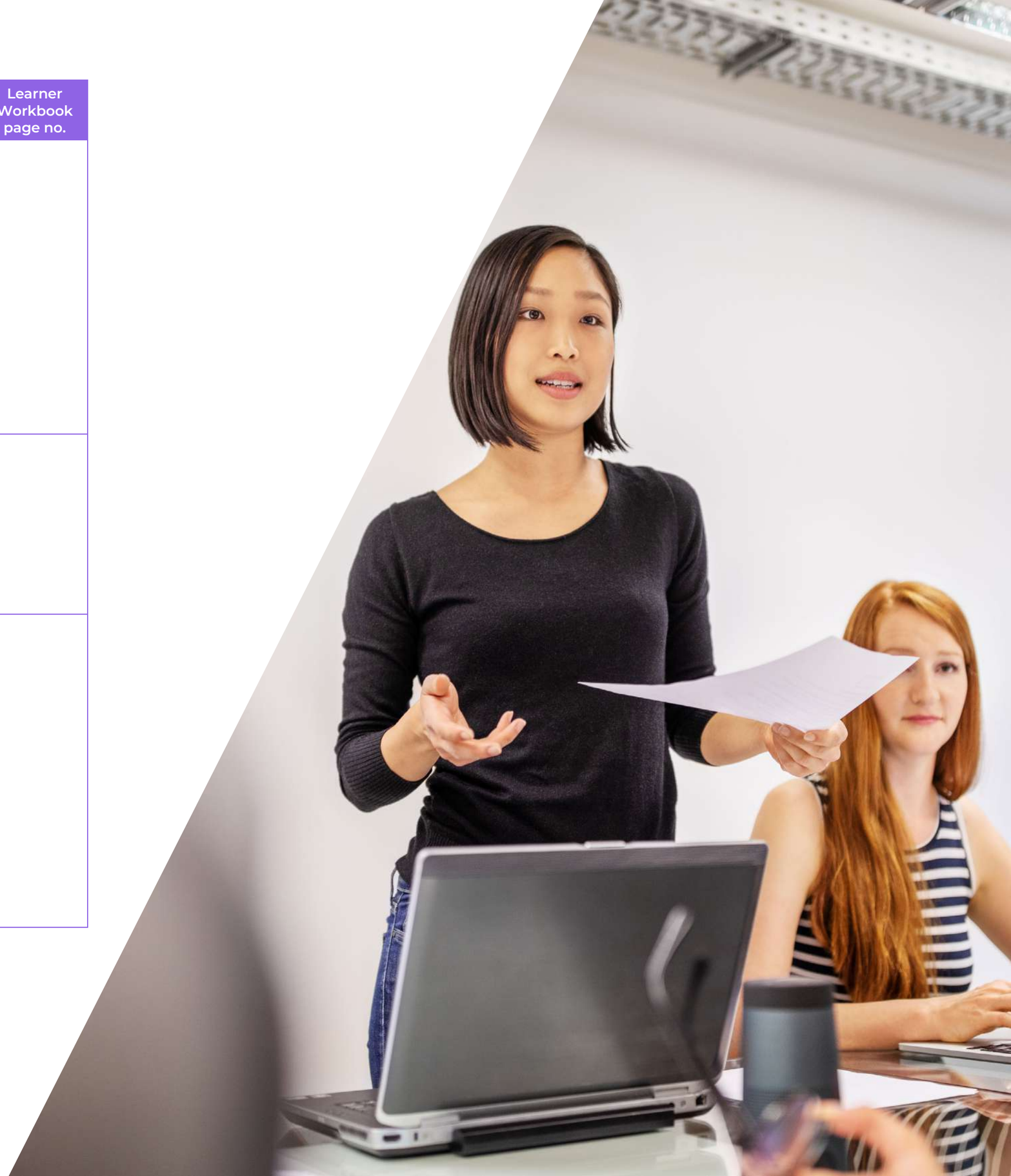
The table below specifies the learning outcomes of the ITIL 4 Foundation qualification, and the assessment criteria used to assess a candidate's achievement of these learning outcomes, subsequent to a course of study.

Note: Official Book references are in parentheses. These refer to the section, but not the subsections within it. The verb for each assessment criterion indicates the Bloom's level (BL): 'Recall'/'Define' indicates Level 1 basic recall and recognition, 'Describe'/'Explain', indicates Level 2 understanding/comprehension.

Learning Outcome	Assessment Criteria	Bloom's Level	No. marks	Learner Workbook page no.
1. Understand the key concepts of service management	1.1 Recall the definition of: a) Service (2.3.1) b) Utility (2.5.4) c) Warranty (2.5.4) d) Customer (2.2.2) e) User (2.2.2) f) Service management (2.0) g) Sponsor (2.2.2)	BL1	2	
	1.2 Describe the key concepts of creating value with services (2.1, 2.1.1, 2.2 and all subsections of 2.5): a) Cost b) Value c) Organization d) Outcome e) Output f) Risk g) Utility h) Warranty	BL2	2	
	1.3 Describe the key concepts of service relationships: (2.3.2, 2.4, 2.4.1): a) Service offering b) Service relationship management c) Service provision d) Service consumption	BL2	1	
2. Understand how the ITIL guiding principles can help an organization adopt and adapt service management	2.1 Describe the nature, use and interaction of the guiding principles (4.3, 4.3.8)	BL2	1	
	2.2 Explain the use of the guiding principles (4.3): a) Focus on value (4.3.1 – 4.3.1.4) b) Start where you are (4.3.2 – 4.3.2.3) c) Progress iteratively with feedback (4.3.3 – 4.3.3.3) d) Collaborate and promote visibility (4.3.4 – 4.3.4.4) e) Think and work holistically (4.3.5 – 4.3.5.1) f) Keep it simple and practical (4.3.6 – 4.3.6.3) g) Optimize and automate (4.3.7 – 4.3.7.3)	BL2	5	
3. Understand the four dimensions of service management	3.1 Describe the four dimensions of service management (3): a) Organizations and people (3.1) b) Information and technology (3.2) c) Partners and suppliers (3.3) d) Value streams and processes (3.4-3.4.2)	BL2	2	
4. Understand the purpose and components of the ITIL service value system	4.1 Describe the ITIL service value system (4.1)	BL2	1	
5. Understand the activities of the service value chain, and how they interconnect	5.1 Describe the interconnected nature of the service value chain and how this supports value streams (4.5)	BL2	1	
	5.2 Describe the purpose of each value chain activity: a) Plan (4.5.1) b) Improve (4.5.2) c) Engage (4.5.3) d) Design & transition (4.5.4) e) Obtain/build (4.5.5) f) Deliver & support (4.5.6)	BL2	1	
6. Know the purpose and key terms of 15 ITIL practices	6.1 Recall the purpose of the following ITIL practices: a) Information security management (5.1.3) b) Relationship management (5.1.9) c) Supplier management (5.1.13) d) IT asset management (5.2.6) e) Monitoring and event management (5.2.7)	BL1	5	

Appendix 2
Resources

Learning Outcome	Assessment Criteria	Bloom's Level	No. marks	Learner Workbook page no.
	f) Release management (5.2.9) g) Service configuration management (5.2.11) h) Deployment management (5.3.1) i) Continual improvement (5.1.2) j) Change enablement (5.2.4) k) Incident management (5.2.5) l) Problem management (5.2.8) m) Service request management (5.2.16) n) Service desk (5.2.14) o) Service level management (5.2.15)			
	6.2 Recall definitions of the following ITIL terms: a) IT asset (5.2.6) b) Event (5.2.7) c) Configuration item (5.2.11) d) Change (5.2.4) e) Incident (5.2.5) f) Problem (5.2.8) g) Known error (5.2.8)	BL1	2	
7. Understand 7 ITIL practices	7.1 Explain the following ITIL practices in detail, excluding how they fit within the service value chain: a) Continual improvement (5.1.2) including: t he continual improvement model (4.6, fig 4.3) b) Change enablement (5.2.4) c) Incident management (5.2.5) d) Problem management (5.2.8) e) Service request management (5.2.16) f) Service desk (5.2.14) g) Service level management (5.2.15 – 5.2.15.1)	BL2	17	



Glossary

acceptance criteria
A list of minimum requirements that a service or service component must meet for it to be acceptable to key stakeholders.

Agile
An umbrella term for a collection of frameworks and techniques that together enable teams and individuals to work in a way that is typified by collaboration, prioritization, iterative and incremental delivery, and timeboxing. There are several specific methods (or frameworks) that are classed as Agile, such as Scrum, Lean, and Kanban.

architecture management practice
The practice of providing an understanding of all the different elements that make up an organization and how those elements relate to one another.

asset register
A database or list of assets, capturing key attributes such as ownership and financial value.

availability
The ability of an IT service or other configuration item to perform its agreed function when required.

availability management practice
The practice of ensuring that services deliver agreed levels of availability to meet the needs of customers and users.

baseline
A report or metric that serves as a starting point against which progress or change can be assessed.

best practice
A way of working that has been proven to be successful by multiple organizations.

big data
The use of very large volumes of structured and unstructured data from a variety of sources to gain new insights.

business analysis practice
The practice of analysing a business or some element of a business, defining its needs and recommending solutions to address these needs and/or solve a business problem, and create value for stakeholders.

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

business impact analysis (BIA)
A key activity in the practice of service continuity management that identifies vital business functions and their dependencies.

business relationship manager (BRM)
A role responsible for maintaining good relationships with one or more customers.

call
An interaction (e.g. a telephone call) with the service desk. A call could result in an incident or a service request being logged.

call/contact centre
An organization or business unit that handles large numbers of incoming and outgoing calls and other interactions.

capability
The ability of an organization, person, process, application, configuration item, or IT service to carry out an activity.

capacity and performance management practice
The practice of ensuring that services achieve agreed and expected performance levels, satisfying current and future demand in a cost-effective way.

capacity planning
The activity of creating a plan that manages resources to meet demand for services.

change
The addition, modification, or removal of anything that could have a direct or indirect effect on services.

change authority
A person or group responsible for authorizing a change.

change enablement practice
The practice of ensuring that risks are properly assessed, authorizing changes to proceed and managing a change schedule in order to maximize the number of successful service and product changes.

change model
A repeatable approach to the management of a particular type of change.

change schedule
A calendar that shows planned and historical changes.

charging
The activity that assigns a price for services.

cloud computing
A model for enabling on-demand network access to a shared pool of configurable computing resources that can be rapidly provided with minimal management effort or provider interaction.

compliance
The act of ensuring that a standard or set of guidelines is followed, or that proper, consistent accounting or other practices are being employed.

confidentiality
A security objective that ensures information is not made available or disclosed to unauthorized entities.

configuration
An arrangement of configuration items (CIs) or other resources that work together to deliver a product or service. Can also be used to describe the parameter settings for one or more CIs.

configuration item (CI)
Any component that needs to be managed in order to deliver an IT service.

configuration management database (CMDB)
A database used to store configuration records throughout their lifecycle. The CMDB also maintains the relationships between configuration records.

configuration management system (CMS)
A set of tools, data, and information that is used to support service configuration management.

configuration record
A record containing the details of a configuration item (CI). Each configuration record documents the lifecycle of a single CI. Configuration records are stored in a configuration management database.

continual improvement practice
The practice of aligning an organization's practices and services with changing business needs through the ongoing identification and improvement of all elements involved in the effective management of products and services.

continuous deployment
An integrated set of practices and tools used to deploy software changes into the production environment. These software changes have already passed pre-defined automated tests.

continuous integration/continuous delivery
An integrated set of practices and tools used to merge developers' code, build and test the resulting software, and package it so that it is ready for deployment.

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

cost
The amount of money spent on a specific activity or resource.

cost centre
A business unit or project to which costs are assigned.

critical success factor (CSF)
A necessary precondition for the achievement of intended results.

culture
A set of values that is shared by a group of people, including expectations about how people should behave, ideas, beliefs, and practices.

customer
The role that defines the requirements for a service and takes responsibility for the outcomes of service consumption.

customer experience (CX)
The sum of functional and emotional interactions with a service and service provider as perceived by a service customer.

dashboard
A real-time graphical representation of data.

deliver and support
The value chain activity that ensures services are delivered and supported according to agreed specifications and stakeholders' expectations.

demand
Input to the service value system based on opportunities and needs from internal and external stakeholders.

deployment
The movement of any service component into any environment.

deployment management practice
The practice of moving new or changed hardware, software, documentation, processes, or any other service component to live environments.

design and transition
The value chain activity that ensures products and services continually meet stakeholder expectations for quality, costs, and time to market.

design thinking
A practical and human-centred approach used by product and service designers to solve complex problems and find practical and creative solutions that meet the needs of an organization and its customers.

development environment
An environment used to create or modify IT services or applications.

DevOps
An organizational culture that aims to improve the flow of value to customers. DevOps focuses on culture, automation, Lean, measurement, and sharing (CALMS).

digital transformation
The evolution of traditional business models to meet the needs of highly empowered customers, with technology playing an enabling role.

disaster
A sudden unplanned event that causes great damage or serious loss to an organization. A disaster results in an organization failing to provide critical business functions for some predetermined minimum period of time.

disaster recovery plans
A set of clearly defined plans related to how an organization will recover from a disaster as well as return to a pre-disaster condition, considering the four dimensions of service management.

driver
Something that influences strategy, objectives, or requirements.

effectiveness
A measure of whether the objectives of a practice, service or activity have been achieved.

efficiency
A measure of whether the right amount of resources have been used by a practice, service, or activity.

emergency change
A change that must be introduced as soon as possible.

engage
The value chain activity that provides a good understanding of stakeholder needs, transparency, continual engagement, and good relationships with all stakeholders.

environment
A subset of the IT infrastructure that is used for a particular purpose, for example a live environment or test environment. Can also mean the external conditions that influence or affect something.

error
A flaw or vulnerability that may cause incidents.

error control
Problem management activities used to manage known errors.

escalation
The act of sharing awareness or transferring ownership of an issue or work item.

event
Any change of state that has significance for the management of a service or other configuration item.

external customer
A customer who works for an organization other than the service provider.

failure
A loss of ability to operate to specification, or to deliver the required output or outcome.

feedback loop
A technique whereby the outputs of one part of a system are used as inputs to the same part of the system.

four dimensions of service management
The four perspectives that are critical to the effective and efficient facilitation of value for customers and other stakeholders in the form of products and services.

goods
Tangible resources that are transferred or available for transfer from a service provider to a service consumer, together with ownership and associated rights and responsibilities.

governance
The means by which an organization is directed and controlled.

identity
A unique name that is used to identify and grant system access rights to a user, person, or role.

improve
The value chain activity that ensures continual improvement of products, services, and practices across all value chain activities and the four dimensions of service management.

incident
An unplanned interruption to a service or reduction in the quality of a service.

incident management
The practice of minimizing the negative impact of incidents by restoring normal service operation as quickly as possible.

information and technology
One of the four dimensions of service management. It includes the information and knowledge used to deliver services, and the information and technologies used to manage all aspects of the service value system.

information security management practice
The practice of protecting an organization by understanding and managing risks to the confidentiality, integrity, and availability of information.

information security policy
The policy that governs an organization's approach to information security management.

infrastructure and platform management practice
The practice of overseeing the infrastructure and platforms used by an organization. This enables the monitoring of technology solutions available, including solutions from third parties.

integrity
A security objective that ensures information is only modified by authorized personnel and activities.

internal customer
A customer who works for the same organization as the service provider.

Internet of Things
The interconnection of devices via the internet that were not traditionally thought of as IT assets, but now include embedded computing capability and network connectivity.

IT asset
Any financially valuable component that can contribute to the delivery of an IT product or service.

IT asset management practice
The practice of planning and managing the full lifecycle of all IT assets.

IT infrastructure
All of the hardware, software, networks, and facilities that are required to develop, test, deliver, monitor, manage, and support IT services.

IT service
A service based on the use of information technology.

ITIL
Best-practice guidance for IT service management.

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

ITIL service value chain
An operating model for service providers that covers all the key activities required to effectively manage products and services.

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ITIL value chain activity
A step of the value chain that an organization takes in the creation of value.

Kanban
A method for visualizing work, identifying potential blockages and resource conflicts, and managing work in progress.

key performance indicator (KPI)
An important metric used to evaluate the success in meeting an objective.

knowledge management practice
The practice of maintaining and improving the effective, efficient, and convenient use of information and knowledge across an organization.

known error
A problem that has been analysed but has not been resolved.

Lean
An approach that focuses on improving workflows by maximizing value through the elimination of waste.

lifecycle
The full set of stages, transitions, and associated statuses in the life of a service, product, practice, or other entity.

live
Refers to a service or other configuration item operating in the live environment.

live environment
A controlled environment used in the delivery of IT services to service consumers.

maintainability
The ease with which a service or other entity can be repaired or modified.

major incident
An incident with significant business impact, requiring an immediate coordinated resolution.

management system
Interrelated or interacting elements that establish policy and objectives and enable the achievement of those objectives.

maturity
A measure of the reliability, efficiency and effectiveness of an organization, practice, or process.

mean time between failures (MTBF)
A metric of how frequently a service or other configuration item fails.

mean time to restore service (MTRS)
A metric of how quickly a service is restored after a failure.

measurement and reporting
The practice of supporting good decision-making and continual improvement by decreasing levels of uncertainty.

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

minimum viable product (MVP)
A product with just enough features to satisfy early customers, and to provide feedback for future product development.

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

model
A representation of a system, practice, process, service, or other entity that is used to understand and predict its behaviour and relationships.

modelling
The activity of creating, maintaining, and utilizing models.

monitoring
Repeated observation of a system, practice, process, service, or other entity to detect events and to ensure that the current status is known.

monitoring and event management practice
The practice of systematically observing services and service components, and recording and reporting selected changes of state identified as events.

obtain/build
The value chain activity that ensures service components are available when and where they are needed, and that they meet agreed specifications.

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

operational technology
The hardware and software solutions that detect or cause changes in physical processes through direct monitoring and/or control of physical devices such as valves, pumps, etc.

organization
A person or a group of people that has its own functions with responsibilities, authorities, and relationships to achieve its objectives.

organizational change management practice
The practice of ensuring that changes in an organization are smoothly and successfully implemented and that lasting benefits are achieved by managing the human aspects of the changes.

organizational resilience
The ability of an organization to anticipate, prepare for, respond to, and adapt to unplanned external influences.

organizational velocity
The speed, effectiveness, and efficiency with which an organization operates. Organizational velocity influences time to market, quality, safety, costs, and risks.

organizations and people
One of the four dimensions of service management. It ensures that the way an organization is structured and managed, as well as its roles, responsibilities, and systems of authority and communication, is well defined and supports its overall strategy and operating model.

outcome
A result for a stakeholder enabled by one or more outputs.

output
A tangible or intangible deliverable of an activity.

outsourcing
The process of having external suppliers provide products and services that were previously provided internally.

partners and suppliers
One of the four dimensions of service management. It encompasses the relationships an organization has with other organizations that are involved in the design, development, deployment, delivery, support, and/or continual improvement of services.

partnership
A relationship between two organizations that involves working closely together to achieve common goals and objectives.

performance
A measure of what is achieved or delivered by a system, person, team, practice, or service.

pilot
A test implementation of a service with a limited scope in a live environment.

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

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

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

post-implementation review (PIR)
A review after the implementation of a change, to evaluate success and identify opportunities for improvement.

practice
A set of organizational resources designed for performing work or accomplishing an objective.

problem
A cause, or potential cause, of one or more incidents.

problem management practice
The practice of reducing the likelihood and impact of incidents by identifying actual and potential causes of incidents, and managing workarounds and known errors.

procedure
A documented way to carry out an activity or a process.

process
A set of interrelated or interacting activities that transform inputs into outputs. Processes define the sequence of activities and their dependencies.

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product
A configuration of an organization's resources designed to offer value for a consumer.

production environment
See live environment.

programme
A set of related projects and activities, and an organization structure created to direct and oversee them.

project
A temporary structure that is created for the purpose of delivering one or more outputs (or products) according to an agreed business case.

project management practice
The practice of ensuring that all an organization's proects are successfully delivered.

quick win
An improvement that is expected to provide a return on investment in a short period of time with relatively small cost and effort.

record
A document stating results achieved and providing evidence of activities performed.

recovery
The activity of returning a configuration item to normal operation after a failure.

recovery point objective (RPO)
The point to which information used by an activity must be restored to enable the activity to operate on resumption.

recovery time objective (RTO)
The maximum acceptable period of time following a service disruption that can elapse before the lack of business functionality severely impacts the organization.

relationship management practice
The practice of establishing and nurturing links between an organization and its stakeholders at strategic and tactical levels.

release
A version of a service or other configuration item, or a collection of configuration items, that is made available for use.

release management practice
The practice of making new and changed services and features available for use.

reliability
The ability of a product, service, or other configuration item to perform its intended function for a specified period of time or number of cycles.

request catalogue
A view of the service catalogue, providing details on service requests for existing and new services, which is made available for the user.

request for change (RFC)
A description of a proposed change used to initiate change enablement.

resolution
The action of solving an incident or problem.

resource
Personnel, material, finance, or other entity that is required for the execution of an activity or the achievement of an objective. Resources used by an organization may be owned by the organization or used according to an agreement with the resource owner.

retire
The act of permanently withdrawing a product, service, or other configuration item from use.

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.

risk assessment
An activity to identify, analyse, and evaluate risks.

risk management practice
The practice of ensuring that an organization understands and effectively handles risks.

service
A means of enabling value co-creation by facilitating outcomes that customers want to achieve, without the customer having to manage specific costs and risks.

service action
Any action required to deliver a service output to a user. Service actions may be performed by a service provider resource, by service users, or jointly.

service architecture
A view of all the services provided by an organization. It includes interactions between the services, and service models that describe the structure and dynamics of each service.

service catalogue
Structured information about all the services and service offerings of a service provider, relevant for a specific target audience.

service catalogue management practice
The practice of providing a single source of consistent information on all services and service offerings, and ensuring that it is available to the relevant audience.

service configuration management practice
The practice of ensuring that accurate and reliable information about the configuration of services, and the configuration items that support them, is available when and where needed.

service consumption
Activities performed by an organization to consume services. It includes the management of the consumer's resources needed to use the service, service actions performed by users, and the receiving (acquiring) of goods (if required).

service continuity management practice
The practice of ensuring that service availability and performance are maintained at a sufficient level in case of a disaster.

service design practice
The practice of designing products and services that are fit for purpose, fit for use, and that can be delivered by the organization and its ecosystem.

service desk
The point of communication between the service provider and all its users.

service desk practice
The practice of capturing demand for incident resolution and service requests.

service financial management practice
The practice of supporting an organization's strategies and plans for service management by ensuring that the organization's financial resources and investments are being used effectively.

service level
One or more metrics that define expected or achieved service quality.

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

service level management practice
The practice of setting clear business-based targets for service performance so that the delivery of a service can be properly assessed, monitored, and managed against these targets.

service management
A set of specialized organizational capabilities for enabling value for customers in the form of services.

service offering
A formal description of one or more services, designed to address the needs of a target consumer group. A service offering may include goods, access to resources, and service actions.

service owner
A role that is accountable for the delivery of a specific service.

service portfolio
A complete set of products and services that are managed throughout their lifecycles by an organization.

service provider
A role performed by an organization in a service relationship to provide services to consumers.

service provision
Activities performed by an organization to provide services. It includes management of the provider's resources, configured to deliver the service; ensuring access to these resources for users; fulfilment of the agreed service actions; service level management; and continual improvement. It may also include the supply of goods.

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service relationship
A cooperation between a service provider and service consumer. Service relationships include

service provision,
service consumption, and service relationship management.

service relationship management
Joint activities performed by a service provider and a service consumer to ensure continual value co-creation based on agreed and available service offerings.

service request
A request from a user or a user's authorized representative that initiates a service action which has been agreed as a normal part of service delivery.

service request management practice
The practice of supporting the agreed quality of a service by handling all pre-defined, user-initiated service requests in an effective and user-friendly manner.

service validation and testing practice
The practice of ensuring that new or changed products and services meet defined requirements.

service value system (SVS)
A model representing how all the components and activities of an organization work together to facilitate value creation.

software development and management practice
The practice of ensuring that applications meet stakeholder needs in terms of functionality, reliability, maintainability, compliance, and auditability.

sourcing
The activity of planning and obtaining resources from a particular source type, which could be internal or external, centralized or distributed, and open or proprietary.

specification
A documented description of the properties of a product, service, or other configuration item.

sponsor
The role that authorizes budget for service consumption. Can also be used to describe an organization or individual that provides financial or other support for an initiative.

stakeholder
A person or organization that has an interest or involvement in an organization, product, service, practice, or other entity.

standard
A document, established by consensus and approved by a recognized body, that provides for common and repeated use, mandatory requirements, guidelines, or characteristics for its subject.

standard change
A low-risk, pre-authorized change that is well understood and fully documented, and which can be implemented without needing additional authorization.

status
A description of the specific states an entity can have at a given time.

strategy management practice
The practice of formulating the goals of an organization and adopting the courses of action and allocation of resources necessary for achieving those goals.

supplier
A stakeholder responsible for providing services that are used by an organization.

supplier management practice
The practice of ensuring that an organization's suppliers and their performance levels are managed appropriately to support the provision of seamless quality products and services.

support team
A team with the responsibility to maintain normal operations, address users' requests, and resolve incidents and problems related to specified products, services, or other configuration items.

system
A combination of interacting elements organized and maintained to achieve one or more stated purposes.

systems thinking
A holistic approach to analysis that focuses on the way that a system's constituent parts work, interrelate, and interact over time, and within the context of other systems.

technical debt
The total rework backlog accumulated by choosing workarounds instead of system solutions that would take longer.

test environment
A controlled environment established to test products, services, and other configuration items.

third party
A stakeholder external to an organization.

throughput
A measure of the amount of work performed by a product, service, or other system over a given period of time.

transaction
A unit of work consisting of an exchange between two or more participants or systems.

use case
A technique using realistic practical scenarios to define functional requirements and to design tests.

user
The role that uses services.

user experience (UX)
The sum of the functional and emotional interactions with a service and service provider as perceived by a user.

utility
The functionality offered by a product or service to meet a particular need. Utility can be summarized as 'what the service does' and can be used to determine whether a service is 'fit for purpose'. To have utility, a service must either support the performance of the consumer or remove constraints from the consumer. Many services

do both.

utility requirements
Functional requirements which have been defined by the customer and are unique to a specific product.

validation
Confirmation that the system, product, service, or other entity meets the agreed specification.

value
The perceived benefits, usefulness, and importance of something.

value stream
A series of steps an organization undertakes to create and deliver products and services to consumers.

value streams and processes
One of the four dimensions of service management. It defines the activities, workflows, controls, and procedures needed to achieve the agreed objectives.

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

warranty
Assurance that a product or service will meet agreed requirements. Warranty can be summarized as 'how the service performs' and can be used to determine whether a service is 'fit for use'. Warranty often relates to service levels aligned with the needs of service consumers. This may be based on a formal agreement, or it may be a marketing message or brand image. Warranty typically addresses such areas as the availability of the service, its capacity, levels of security, and continuity. A service may be said to provide acceptable assurance, or 'warranty', if all defined and agreed conditions are met.

warranty requirements
Typically non-functional requirements captured as inputs from key stakeholders and other practices.

waterfall method
A development approach that is linear and sequential with distinct objectives for each phase of development.

work instruction
A detailed description to be followed in order to perform an activity.

workaround
A solution that reduces or eliminates the impact of an incident or problem for which a full resolution is not yet available. Some workarounds reduce the likelihood of incidents.

workforce and talent management practice
The practice of ensuring that an organization has the right people with the appropriate skills and knowledge and in the correct roles to support its business objectives.

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