

IT Service Management based on ITIL

PV214: Řízení dodávky IT služeb vycházející z ITIL

Ing. Aleš Studený



About the Course

Struktura předmětu

12 přednášek – česky / english

Vždy úterý 10:00 až 11:30

G126 v budově toho Centra Šumavská (alias Gotex)

Assessment methods

Written and oral examination at the level of the ITIL Foundation.

The exam can consist of written part and discussion about learned topics.

Percentage distribution of rating:

- Written examination = 50%
- Oral examination = 25%
- Activity during the course = 25%

Recommended Literature

ITIL 2011 overview, Nadin Ebel – ISBN 9788025137321

ITSM - ISO/IEC DIS 20000 – ISBN 807283186

ITIL Service Strategy – ISBN 0113310455

ITIL Service Design – ISBN 0113310471

ITIL Service Transition – ISBN 011331048X

ITIL Service Operation – ISBN 0113310463

ITIL Continual Service Improvement – ISBN 0113310498

ITIL Introduction to Service Lifecycle – ISBN 0113310617

Course Targets

The course responds to the growing trend of world order, when everything will be provided in the form of services. This trend is evident in all sectors, but the most in the IT industry. Best practices providing IT services have been drawn up together with many professionals in the publications of the ITIL (Information Technology Infrastructure Library), which is based on the world standard ISO/IEC 20000.

Course Targets

Students can get acquainted with theoretical knowledge and practical experience of how to manage the delivery of IT services. This experience may apply not only to manage internal IT, but also for the management of IT companies. These principles can apply as well as in the management of any other organization whose goal is to deliver the service.

Course Targets

At the end of the course students should be able to: understand and explain the basics of IT Service Management and discover the importance of a systematic approach to management based on Information Technology Infrastructure Library (ITIL).

Video: How IT works



ITIL - Who and Why?

IT

Information Technology

ITIL

Information Technology Infrastructure Library

ITIL is, in essence...

ITIL is, in essence, a library that documents best practices for IT Service Management.

Non-proprietary, public domain books are the basis of the programme. Many of the concepts, when reviewed, look like common sense. However, like a lot of common sense, it is the application and use that results in it not being as simple as it seems.

ITIL - dlouhá historie a přesto moderní

- 1989–96 CCTA vydává 46–50+ knih ITIL v1 pro vládu GB
- 2000/01 CCTA/OGC vydává 8 knih ITIL v2 a dále spravuje ITIL
- 2007 OGC vydává 5 knih ITILv3 dle životního cyklu služby
- 2011 OGC/„Her Majesty's government“ aktualizuje na ITIL 2011

CCTA = The Central Computer and Telecommunications Agency was a UK government agency providing computer and telecoms support to Government departments.

CCTA se dnes jmenuje OGC = Office of Government Commerce

Earliest version of ITIL (1980s) was actually originally called GITIM, Government Information Technology Infrastructure Management

Usnesení vlády české republiky č. 624-2001

Historie & postup vzdělávání

Help-Desk, Incident Management, SLA (1989)

Configuration Management (1990)

Software Control, Distribution (1992)

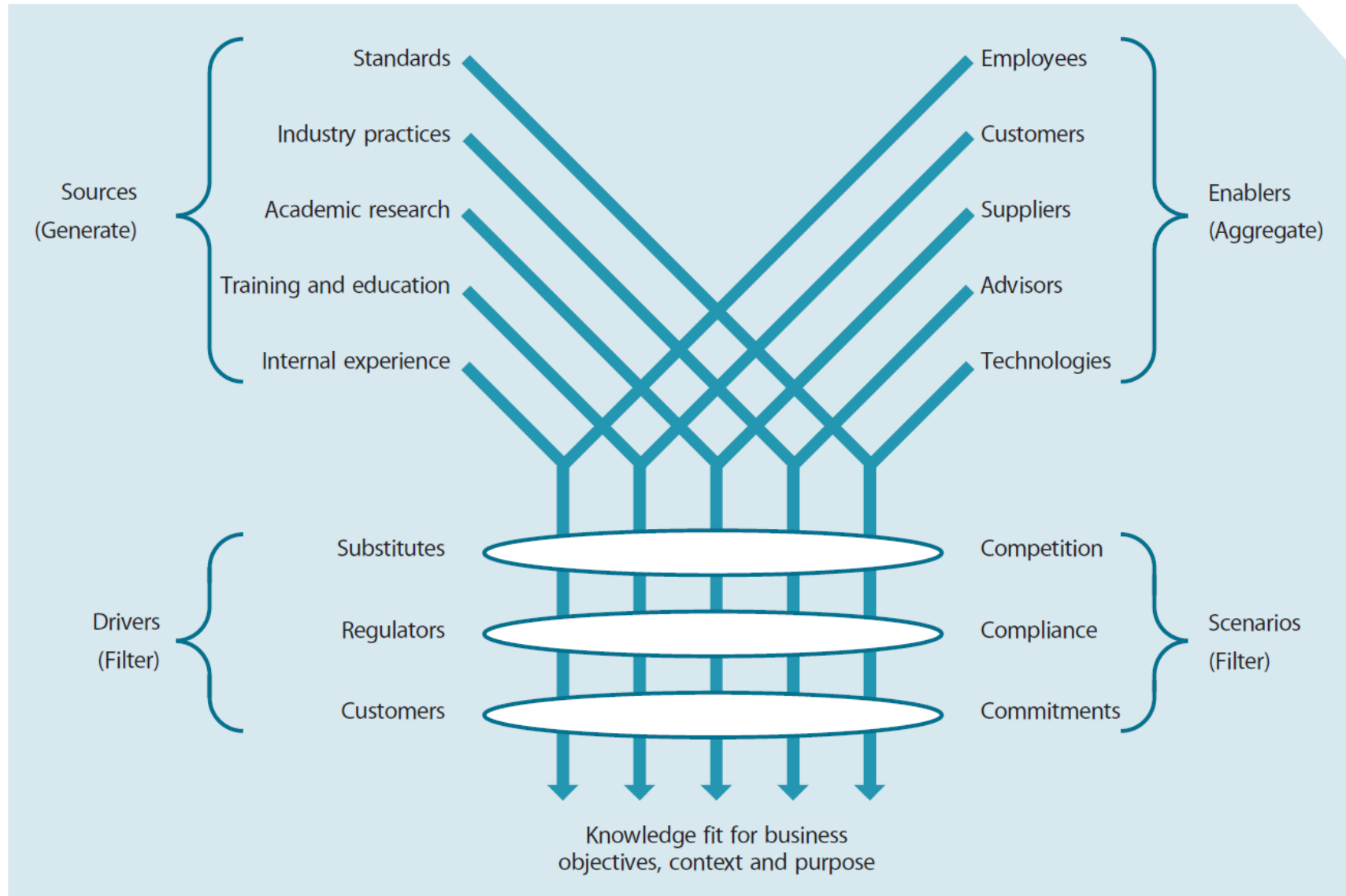
Service Support, Service Delivery (2001)

Infrastructure Management (2002)

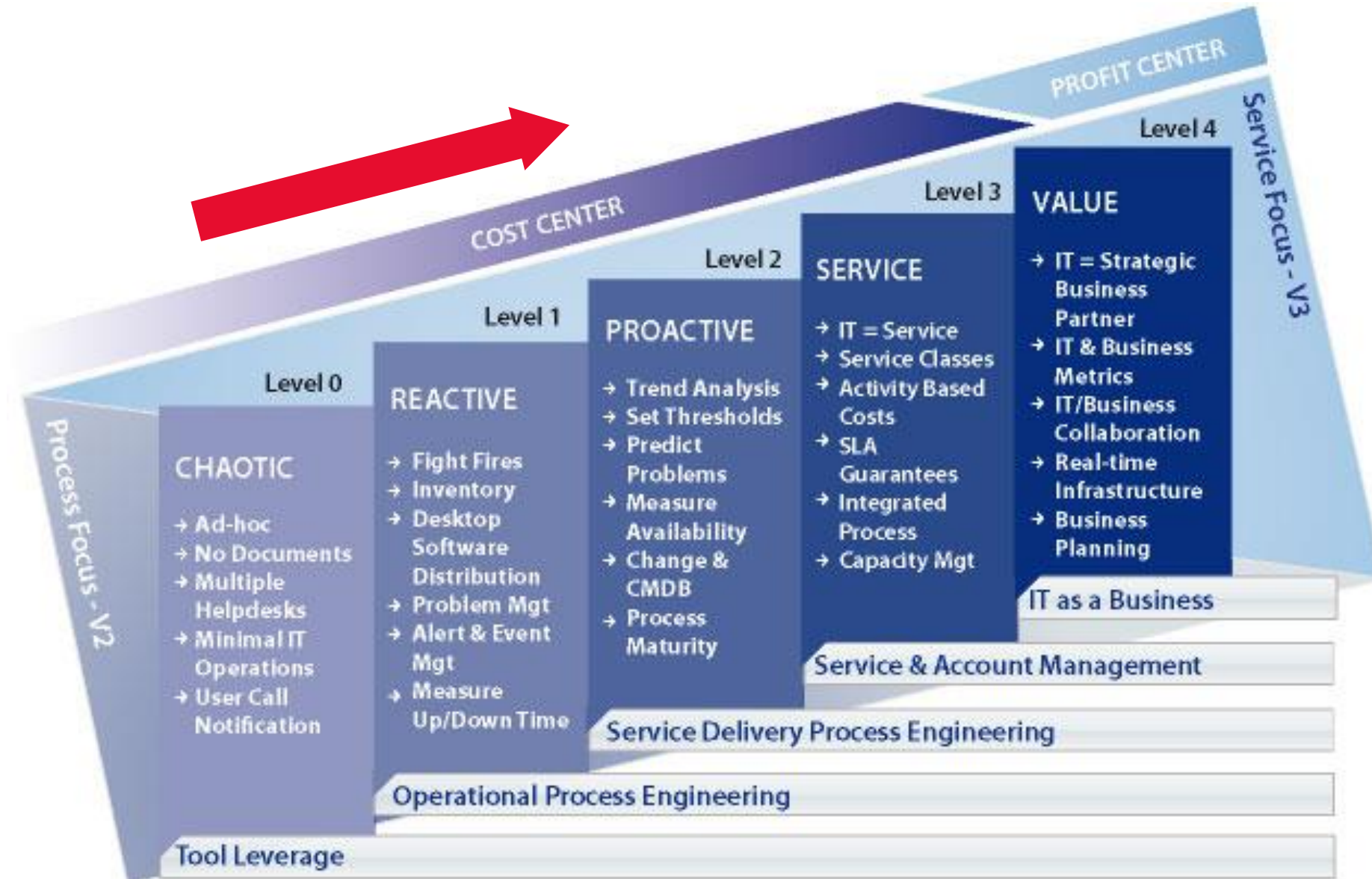
Business Perspective (2004)

Service Strategy, Design, Transition. Continual Improvement (2007)

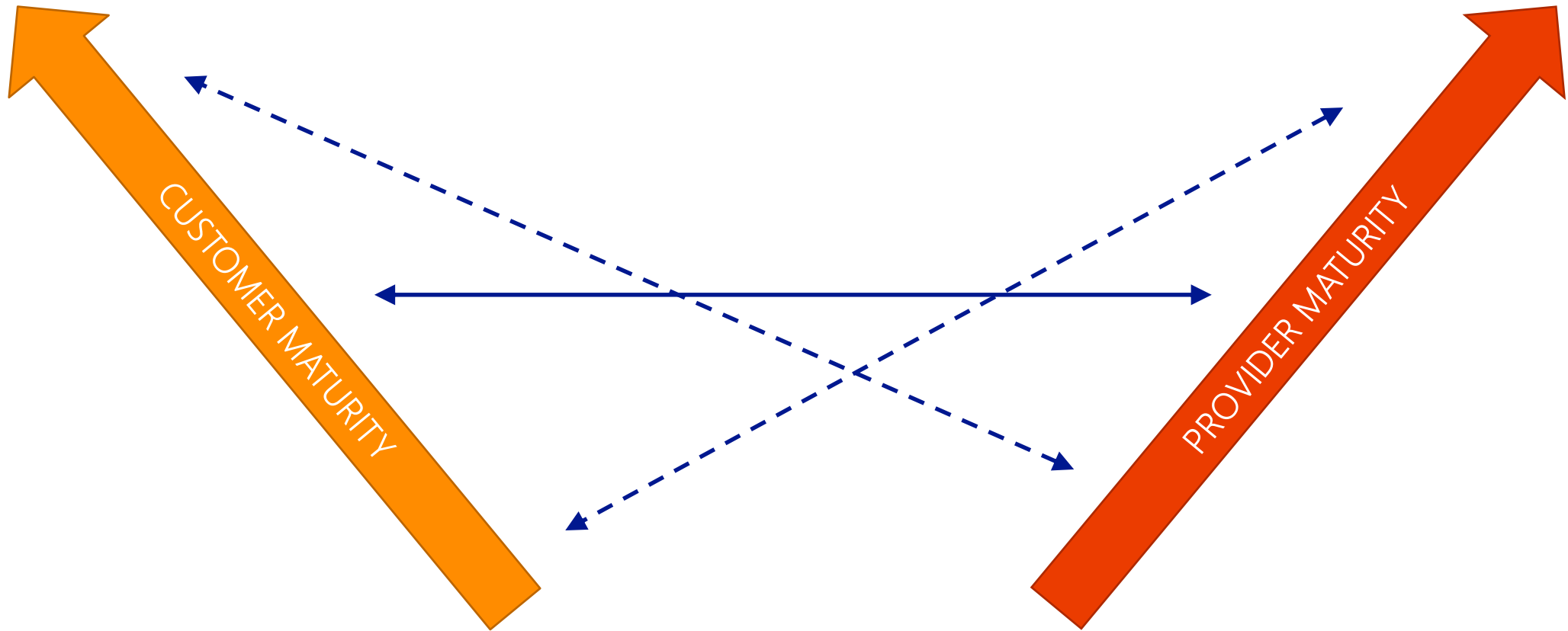
Source of Service Management Practice



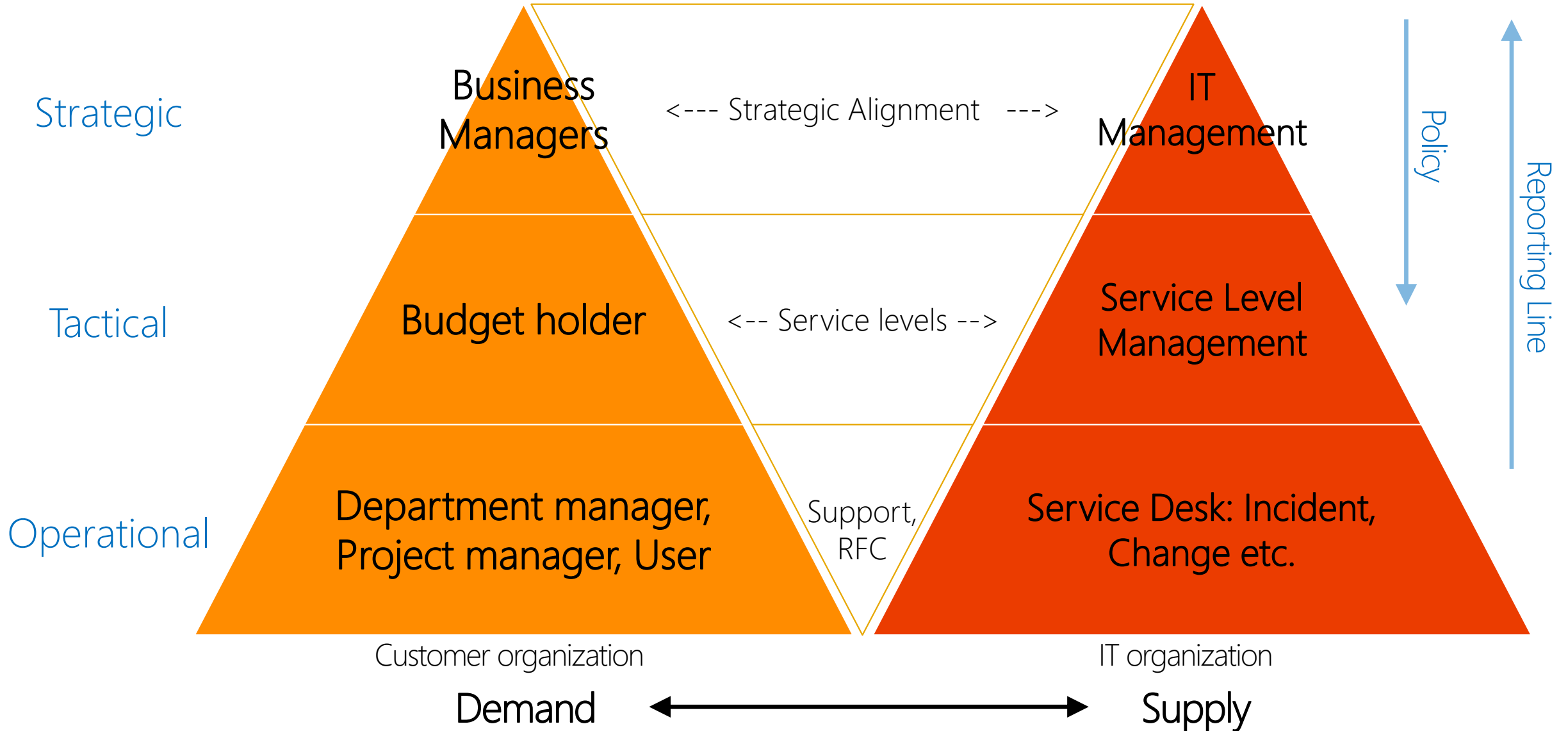
IT Maturity Model



Customer vs. Provider Maturity



IT Customer Relationship Management





ITIL Goal:

Do not re-invent America...

ITIL is scalable

It can be adapted for any size of organization.

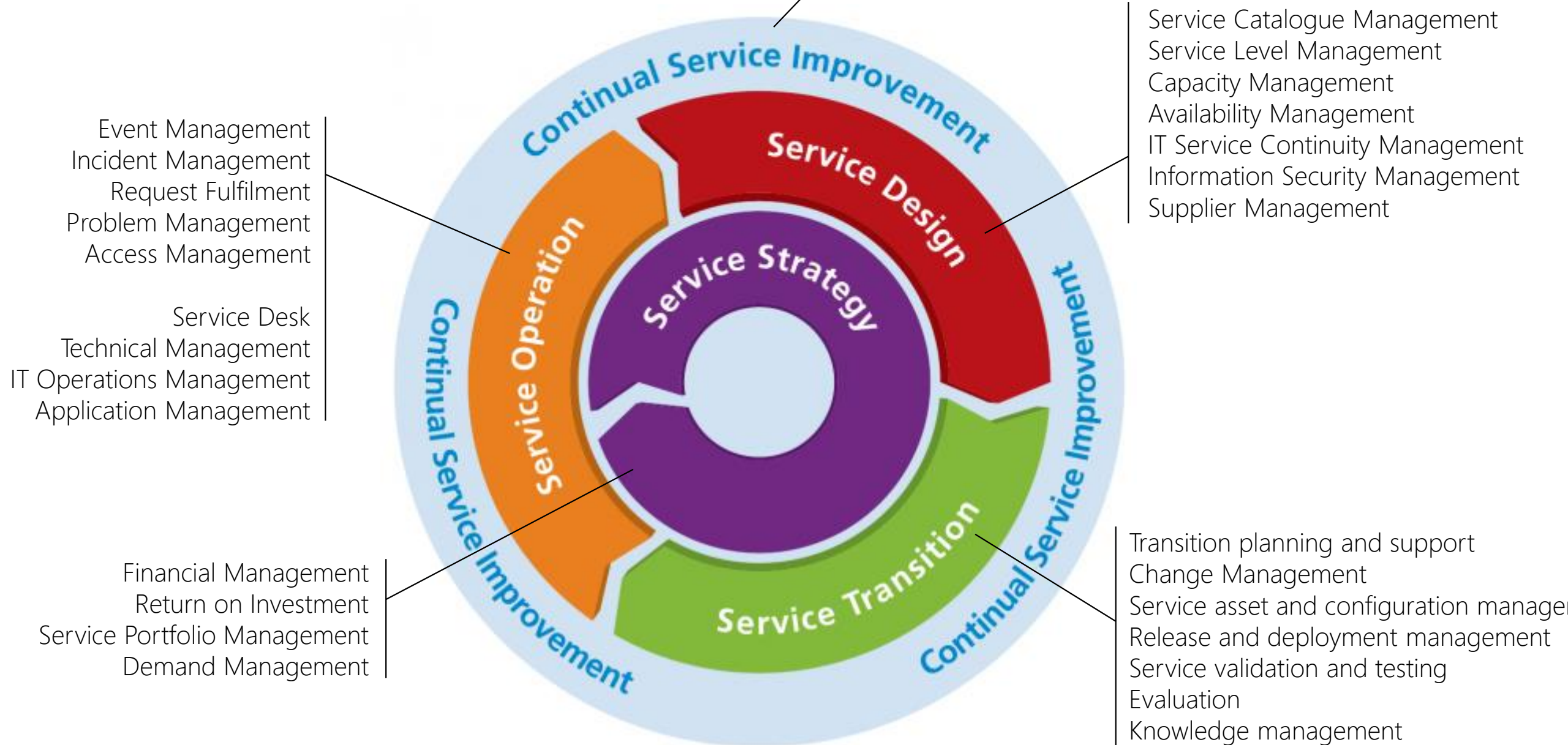
Being a framework, ITIL describes the contours of organising Service Management. The models show the goals, general activities, inputs and outputs of the various processes, which can be incorporated within IT organisations.

ITIL does not cast in stone...

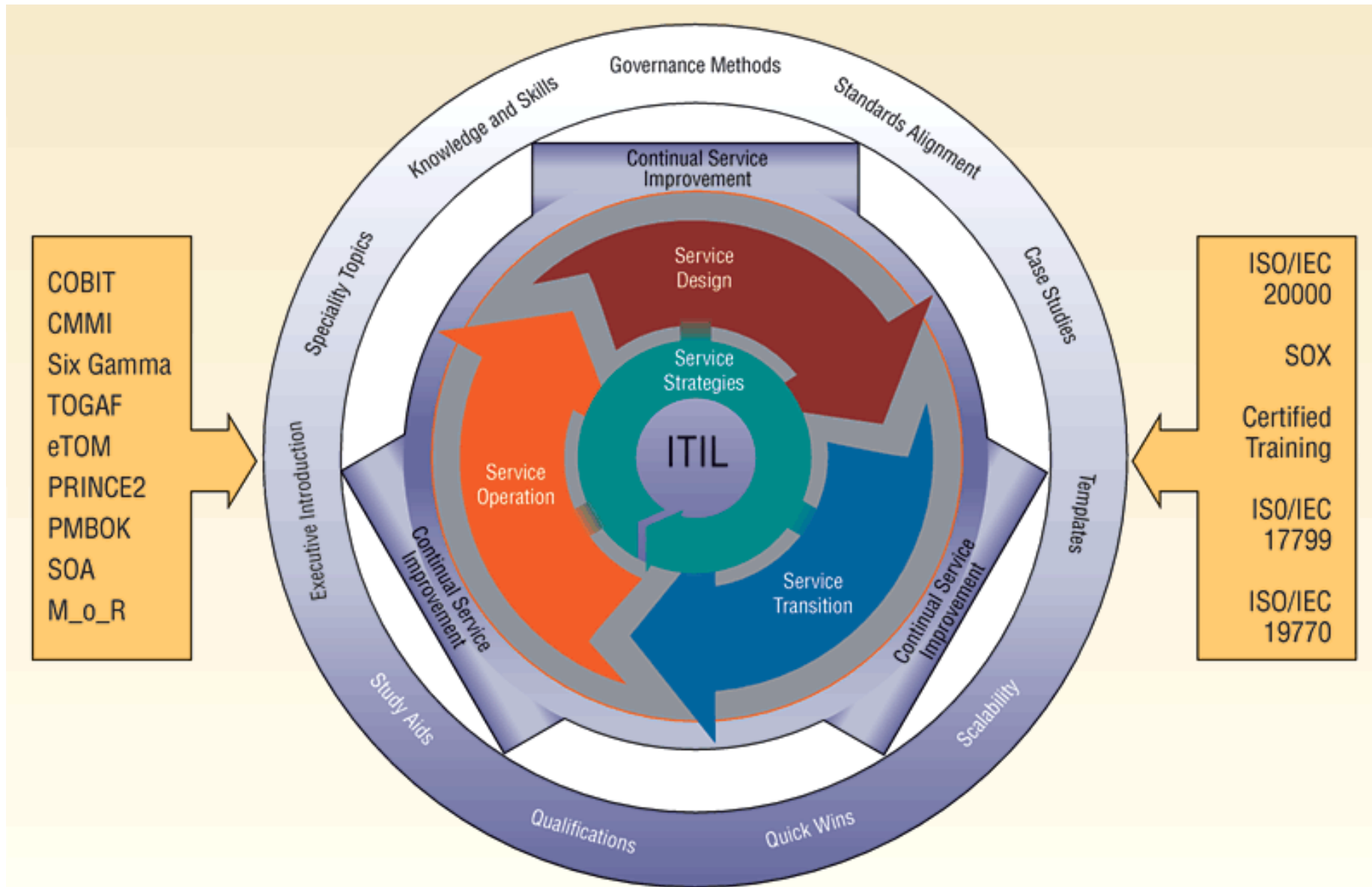
ITIL does not cast in stone every action required on a day-to-day basis because that is something which differs from organisation to organisation. Instead it focuses on best practice that can be utilised in different ways, according to need.

ITIL Core

7-Step Improvement Process



Vliv ostatních standardů na ITIL



Nejlepší praktiky a standardy v ITSM

ITIL = Information Technology Infrastructure Library

ISO = International Organization for Standardization

- 20000 Management služeb IT
- 9001 Systém managementu kvality
- 38500 IT Governance Standard
- 7001 Information Security Management System Standard

COBIT = Control Objectives for Information and Related Technology

eTOM = enhanced Telecom Operations Map

MOF = Microsoft Operation Framework

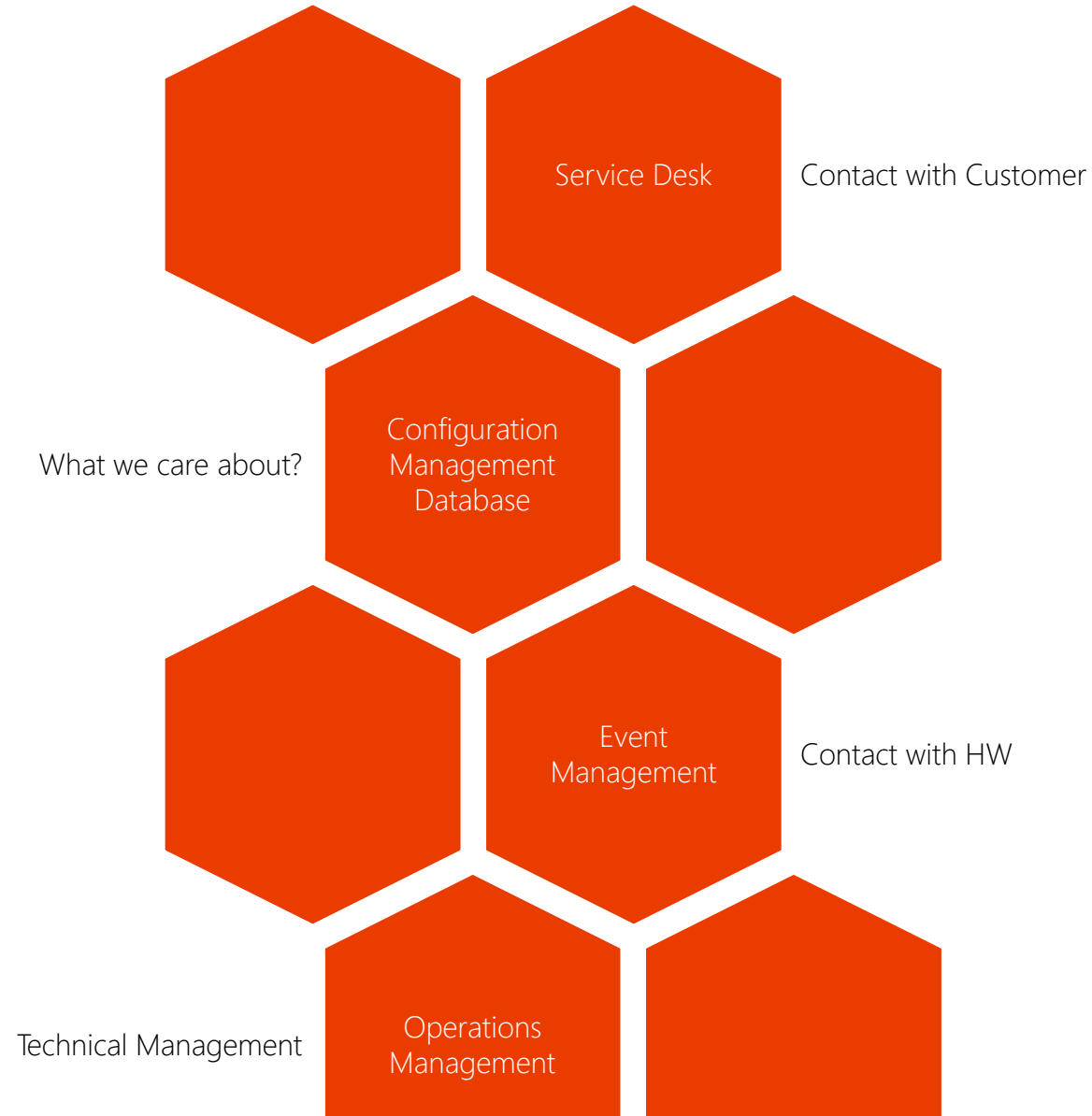
ITIL Common Language

ITIL common language is one of the biggest benefits of IT Infrastructure Library.

ITIL common language is mainly about building a glossary of terms to be used in the IT sector to facilitate communication.

It is useful for communication with your staff or with your business partners.

Essential ITSM support tools





Video: ITIL

A Simple Explanation



Service

Cultural aspects (ITIL Service Delivery)

Unfortunately, until recently, many IT departments have been too obsessed with technology and flashing lights to recognise that they have Customers at all.

...

The days when staff in IT departments regarded their 'Customers' as a *necessary evil* or just *difficult colleagues* have (hopefully) passed.

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- 2000/01 CCTA/OGC vydává 8 knih ITILv2 a dále spravuje ITIL
- 2007 OGC vydává 5 knih ITILv3 dle životního cyklu služby !!!
- 2011 OGC/„Her Majesty's government“ aktualizuje na ITIL 2011

- Firmy nechtějí již IT.
- Firmy chtějí služby.

ITIL -> ITSM

ITIL = IT Infrastructure Library

ITSM = IT Service Management

IT Maturity Model

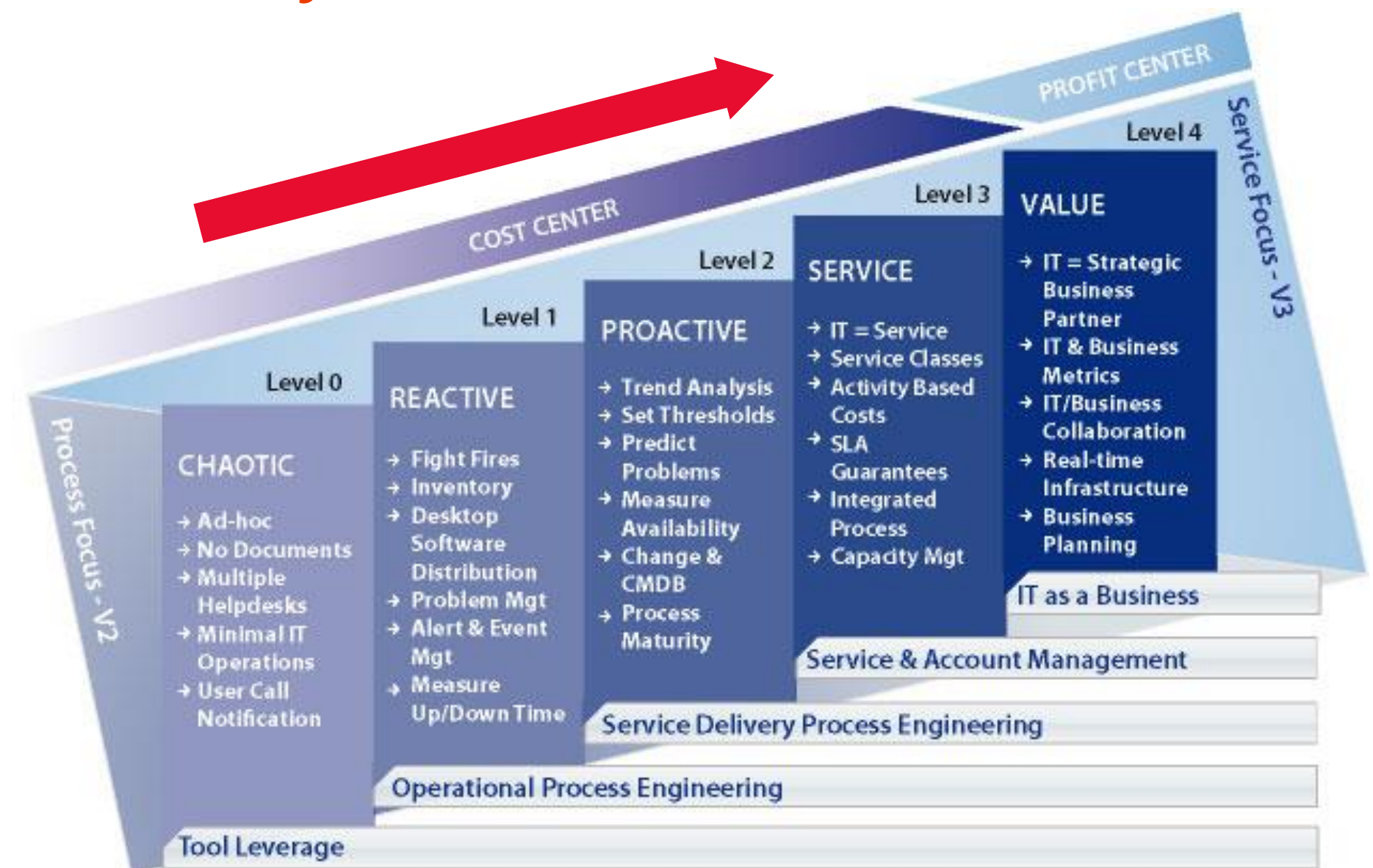


Schéma organizace (procesy)

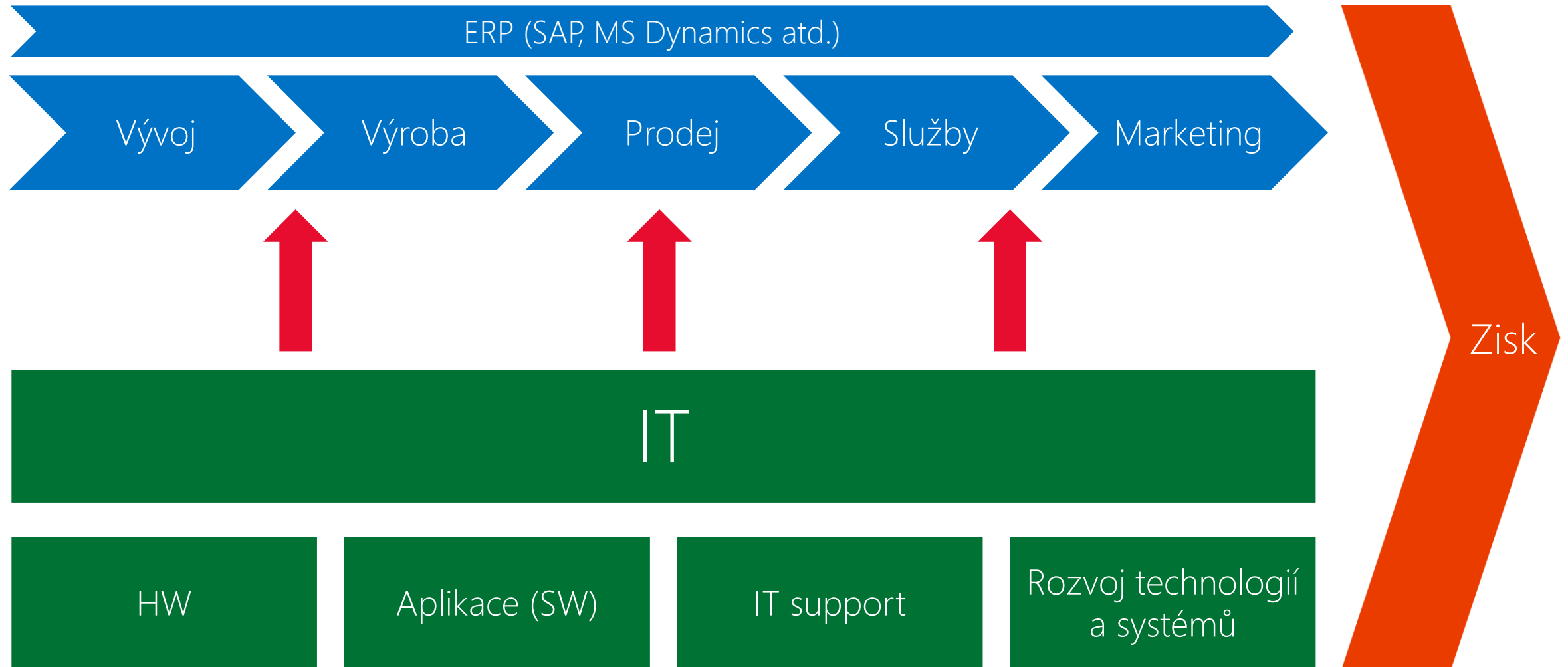


Schéma organizace (lidi)

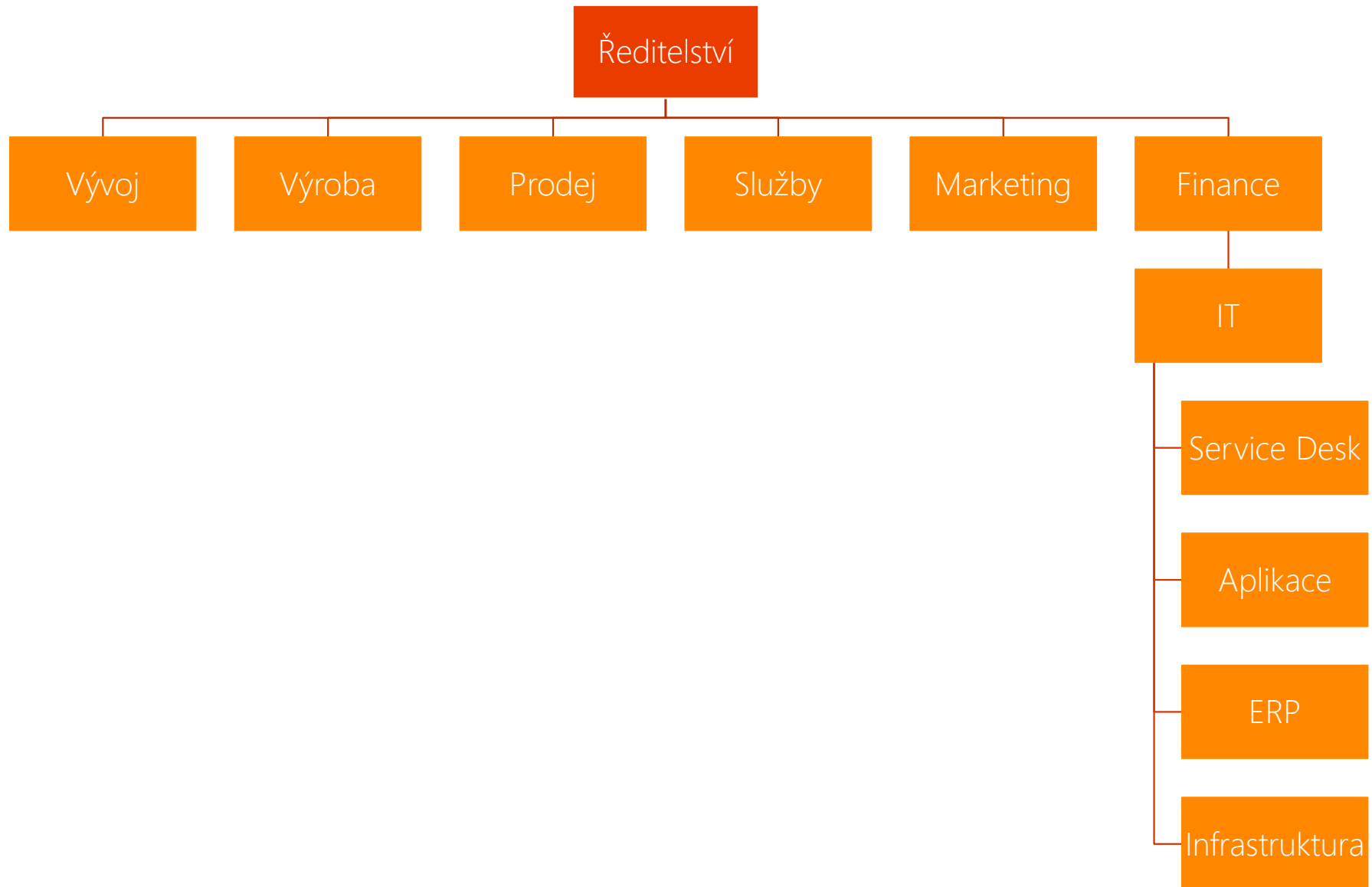


Schéma organizace (lidi)

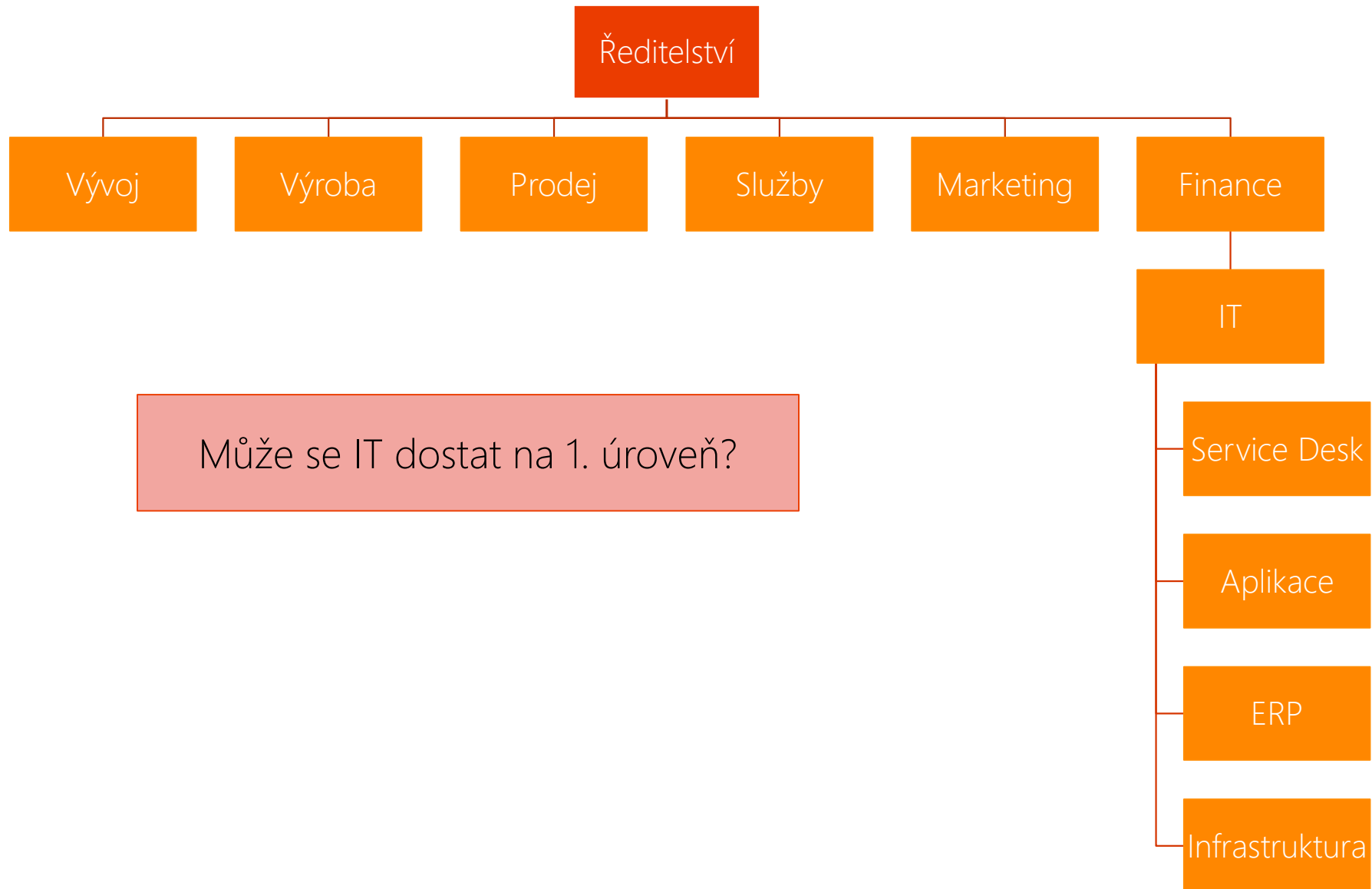
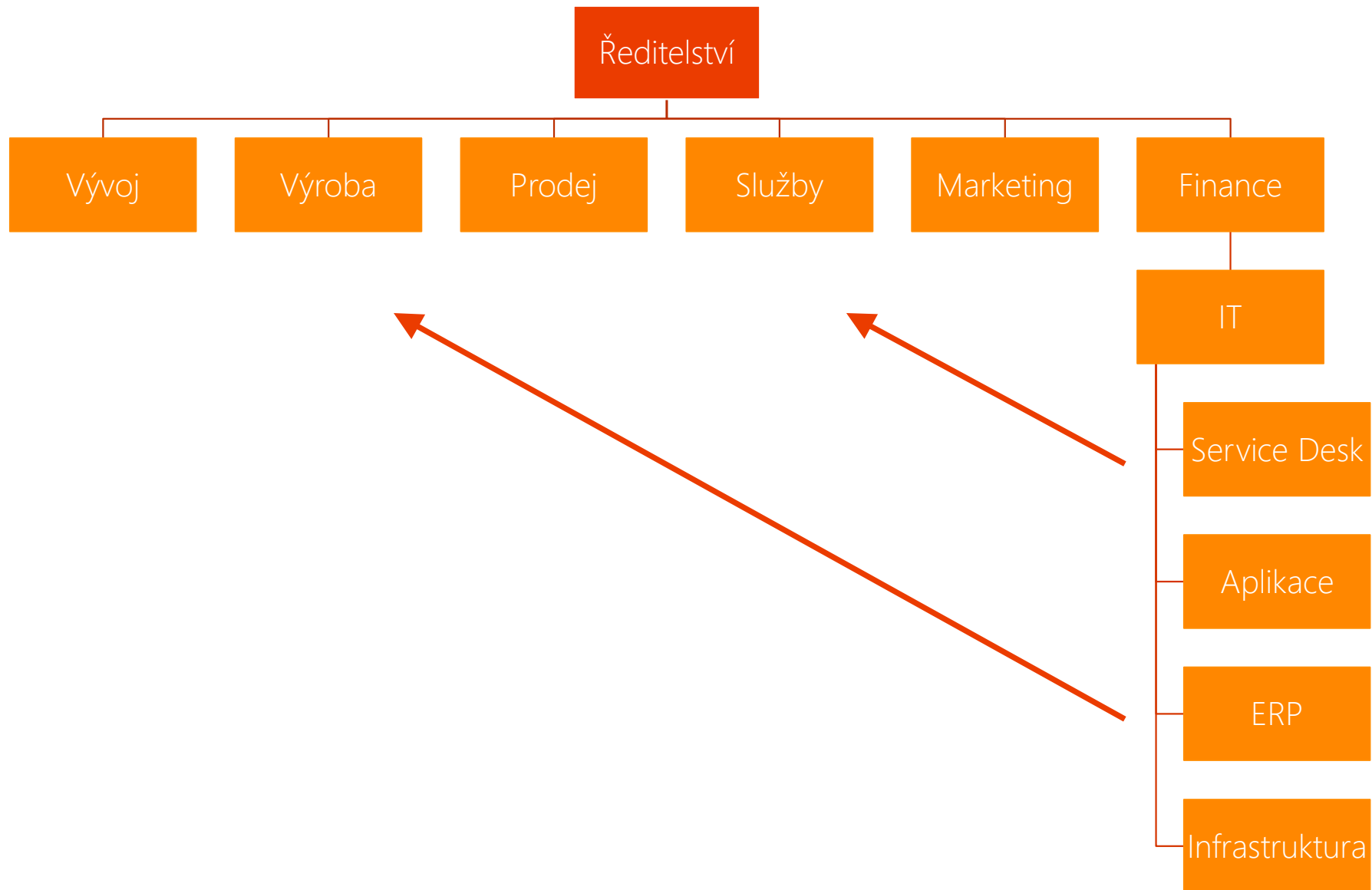


Schéma organizace (lidi)



IT Maturity Model

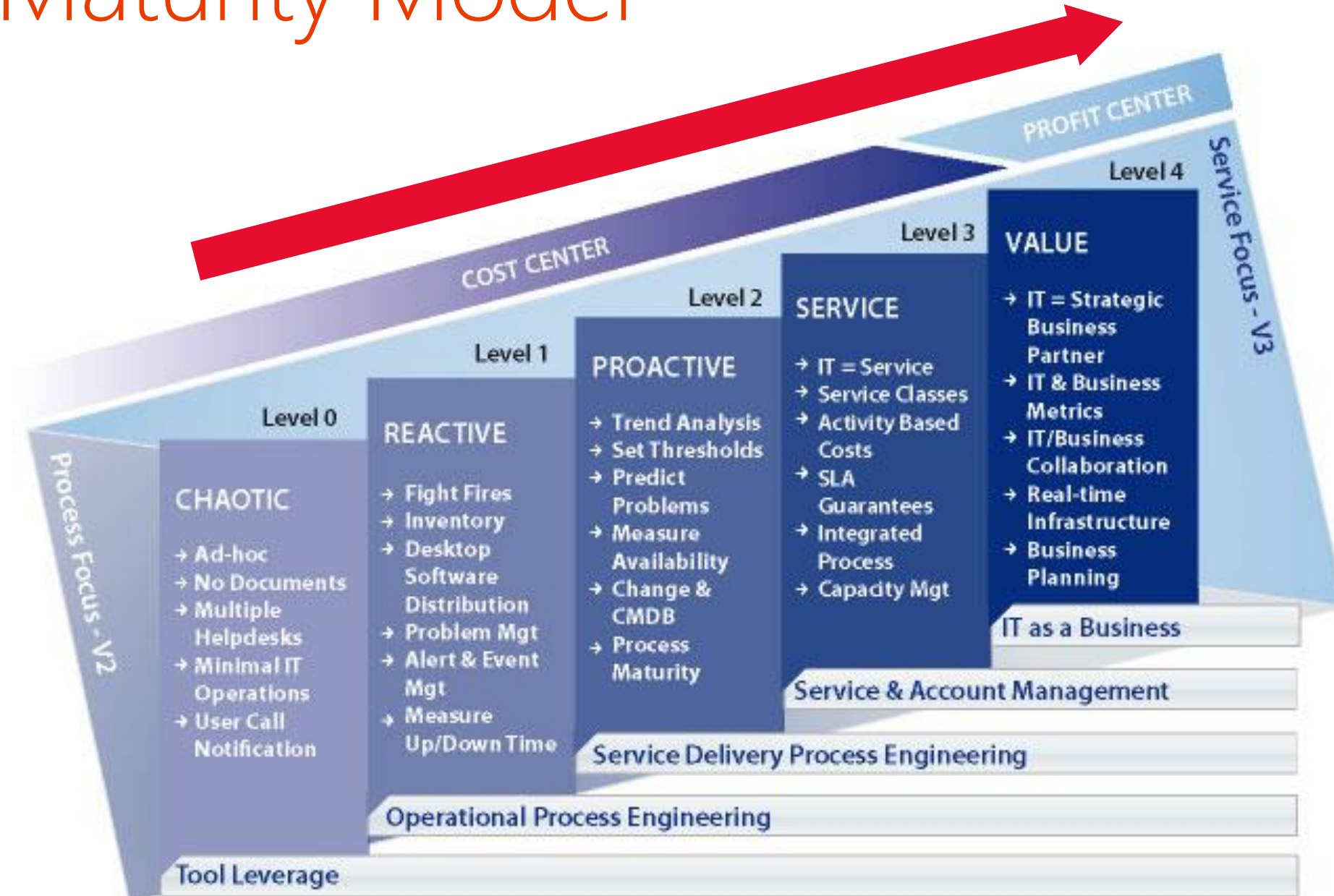


Schéma organizace (procesy)

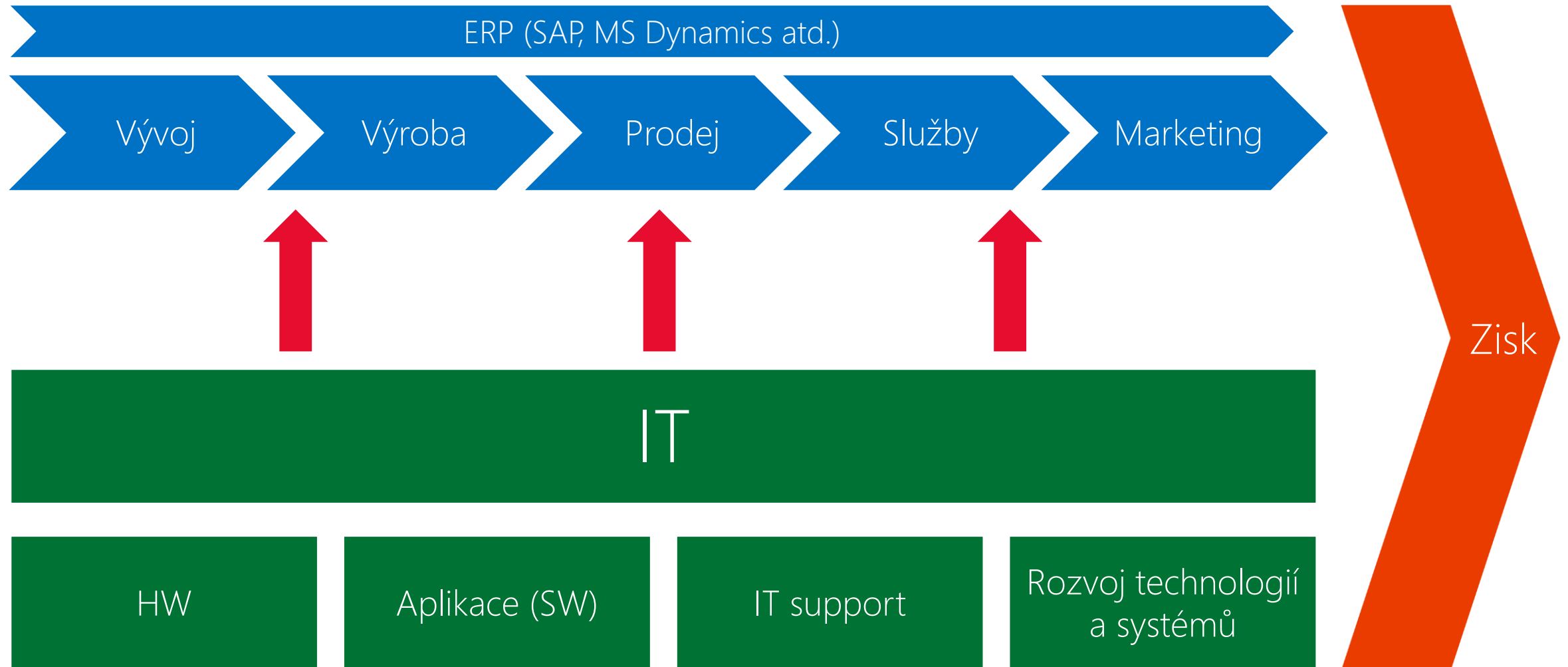
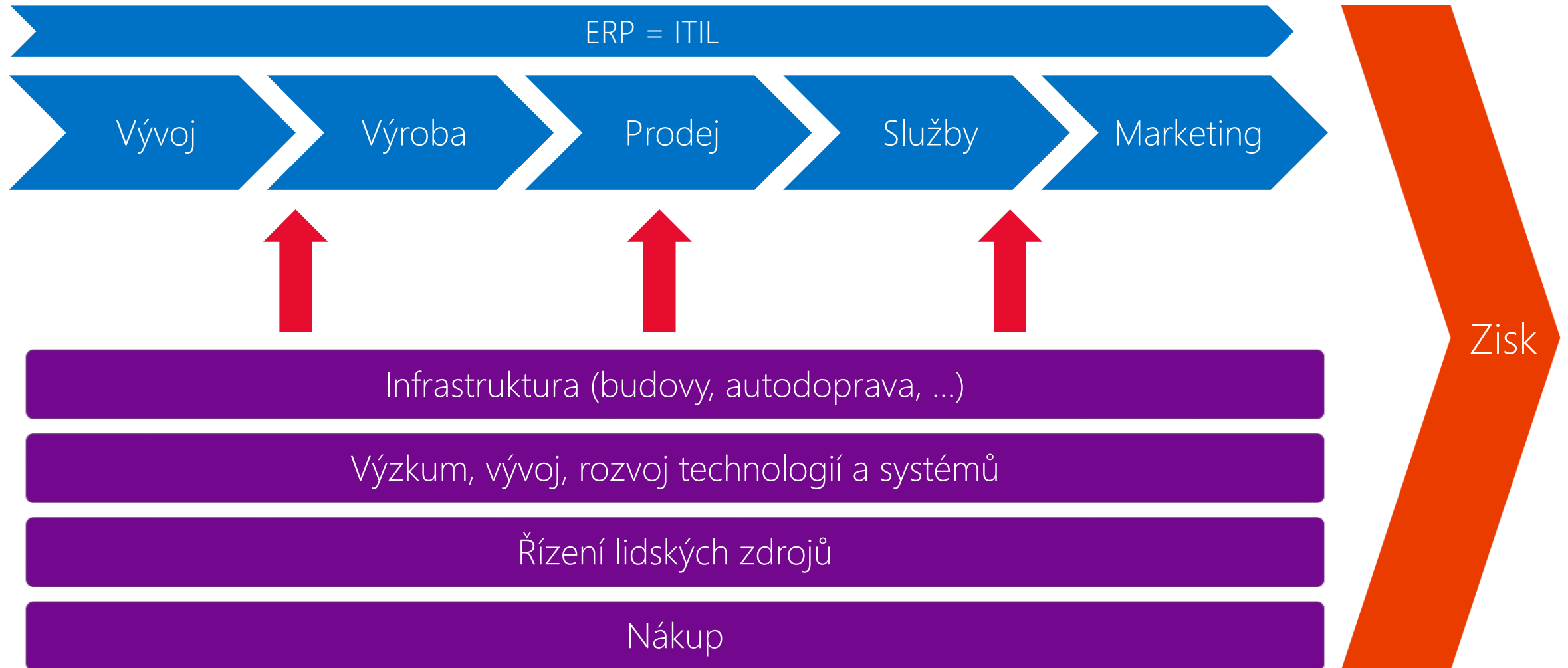


Schéma organizace (procesy)



Service

A service is a means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.

Service Management

Service Management is a set of specialized organizational capabilities for providing value to customers in the form of services.

IT Service Management (ITSM)

The implementation and management of quality IT services that meet the needs of the business.

IT service management is performed by IT service providers through an appropriate mix of people, process and information technology.

Business Service

A service that is delivered to business customers by business units. For example, delivery of financial services to customers of a bank, or goods to the customers of a retail store. Successful delivery of business services often depends on one or more IT services. A business service may consist almost entirely of an IT service – for example, an online banking service or an external website where product orders can be placed by business customers.

IT Service (customer-facing service)

A service provided by an IT service provider. An IT service is made up of a combination of information technology, people and processes. A customer-facing IT service directly supports the business processes of one or more customers and its service level targets should be defined in a service level agreement. Other IT services, called supporting services, are not directly used by the business but are required by the service provider to deliver customer-facing services.

Příklady IT služeb

Pracovní místo

Mail box

Účetní systém

Konstrukční aplikace

Projekční aplikace

Supporting Service

An IT service that is not directly used by the business, but is required by the IT service provider to deliver Customer-facing services (for example, a directory service or a backup service).

Supporting services may also include IT services only used by the IT service provider. All live supporting services, including those available for deployment, are recorded in the service catalogue along with information about their relationships to customer-facing services and other CIs.

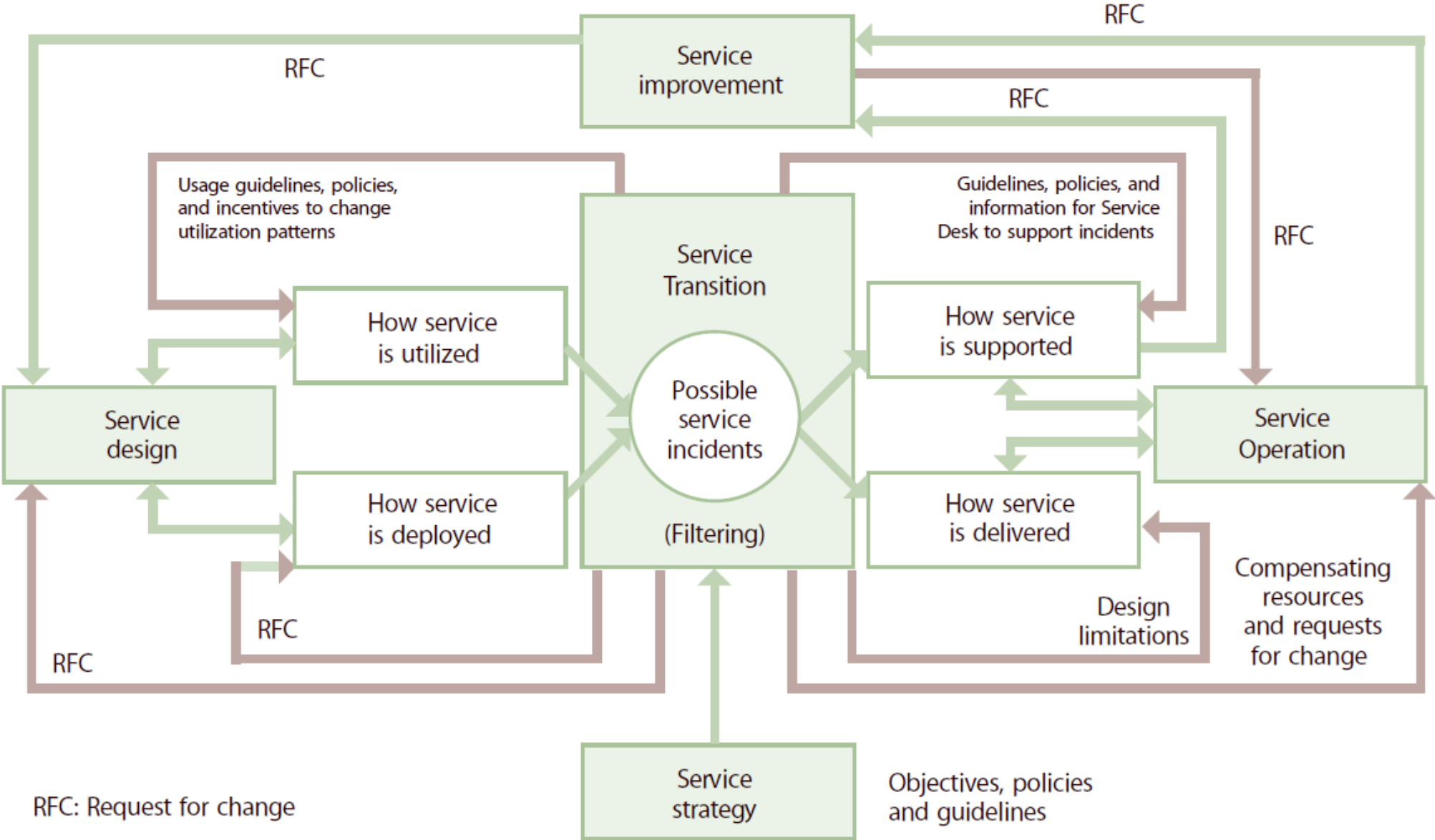
Service Lifecycle

An approach to IT service management that emphasizes the importance of coordination and control across the various functions, processes and systems necessary to manage the full lifecycle of IT services.

The service lifecycle approach considers the strategy, design, transition, operation and continual improvement of IT services.

Also known as service management lifecycle.

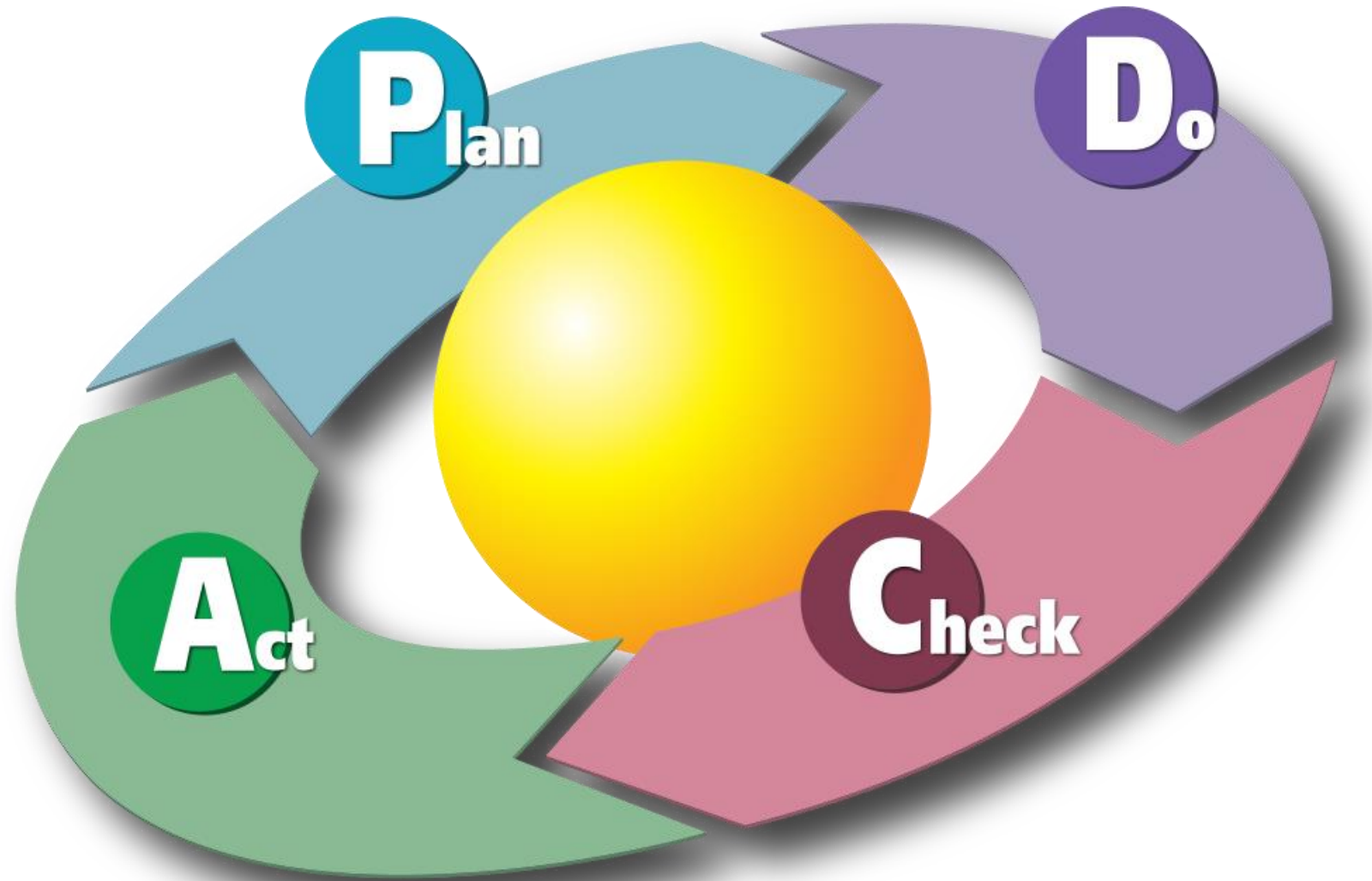
Processes across the Service Lifecycle



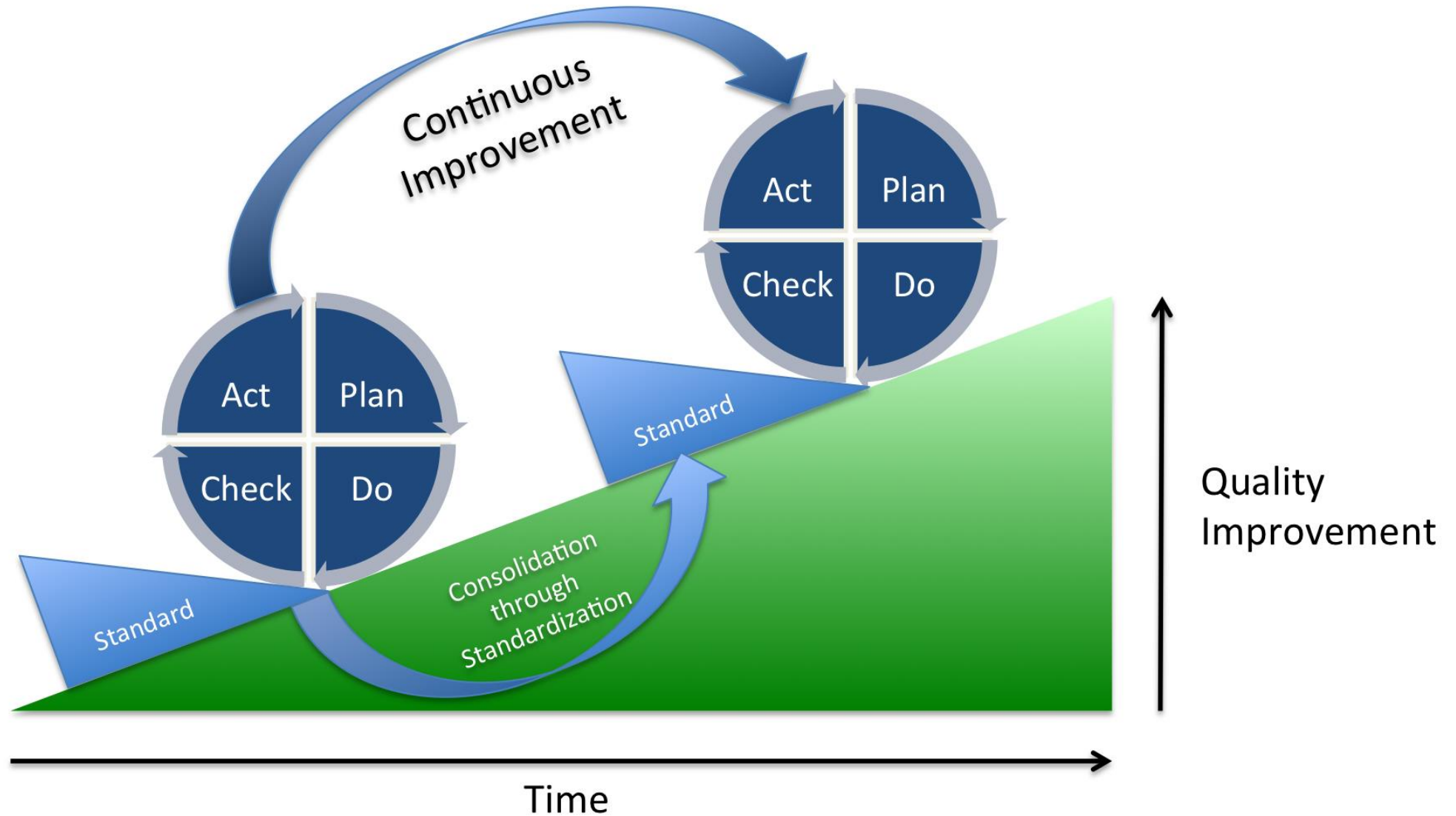


Process

Edward Deming principle: PDCA



PDCA: Continuous Improvement



ITIL terminology basic

People: Group, Team, Department, Division

Roles

Functions

Processes

Group, Team, Department, Division

A **group** is a number of people who are similar in some way.

A **team** is a more formal type of group. These are people who work together to achieve a common objective.

Departments are formal organization structures which exist to perform a specific set of defined activities on an ongoing basis.

A **division** refers to a number of departments that have been grouped together, often by geography or product line.

Role

A set of responsibilities, activities and authorities assigned to a person or team. A role is defined in a process or function.

One person or team may have multiple roles – for example, the roles of **Configuration Manager** and **Change Manager** may be carried out by a single person. Role is also used to describe the purpose of something or what it is used for.

Function

A team or group of people and the tools or other resources they use to carry out one or more processes or activities – for example, the **Service Desk**.

The term also has two other meanings:

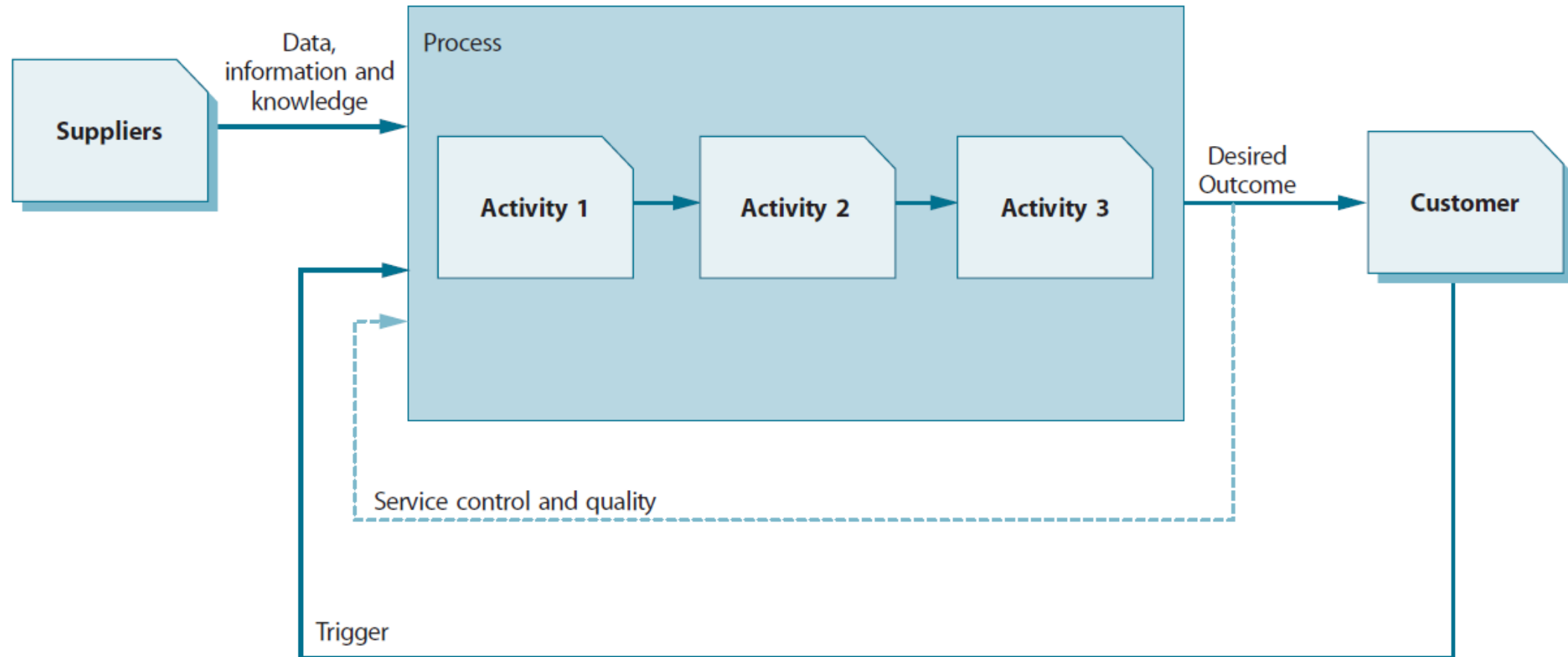
- An intended purpose of a configuration item, person, team, process or IT service. For example, one function of an email service may be to store and forward outgoing mails, while the function of a business process may be to despatch goods to customers.
- To perform the intended purpose correctly, as in 'The computer is functioning.'

Process

A structured set of activities designed to accomplish a specific objective. A process takes one or more defined inputs and turns them into defined outputs.

It may include any of the roles, responsibilities, tools and management controls required to reliably deliver the outputs. A process may define policies, standards, guidelines, activities and work instructions if they are needed. For example: **Incident process.**

Basic process



Process characteristics

Measurable

Specific results

Customers

Responds to a specific event

Process Owner

The person who is held accountable for ensuring that a process is fit for purpose.

The process owner's responsibilities include sponsorship, design, change management and continual improvement of the process and its metrics.

This role can be assigned to the same person who carries out the process manager role, but the two roles may be separate in larger organizations.

Process Manager

A role responsible for the operational management of a process.

The process manager's responsibilities include planning and coordination of all activities required to carry out, monitor and report on the process.

There may be several process managers for one process – for example, regional change managers or IT service continuity managers for each data centre.

Process Practitioner

Carries out one or more process activities

Understands how his or her role adds to value creation

Works with other stakeholders to ensure contributions are effective

Ensures inputs, outputs and interfaces for activities are correct

Creates or updates activity-based records

RACI model / matrix

Defining roles and responsibilities

RACI Definitions	
R	Who is Responsible ▶ The person who is <u>assigned</u> to do the work
A	Who is Accountable ▶ The person who makes the <u>final decision</u> and has the <u>ultimate ownership</u>
C	Who is Consulted ▶ The person who must be consulted <u>before</u> a decision or action is taken
I	Who is Informed ▶ The person who must be informed that a decision or action <u>has</u> been taken

Procesy a postupy stále na očích

The screenshot shows the ALVAO Service Desk interface. At the top, there's a menu bar with 'Soubor', 'Úpravy', 'Zobrazit', and 'Nápověda'. Below it is a toolbar with various icons. The main area displays a list of requests under the 'Požadavky k řešení' tab. The table has columns for 'Iko.', 'P', 'Žadatel', 'Čísl...', 'Služba', 'Název požadavku', 'Stav', 'Poznámky', 'Termín', and 'Naléhavost'. Three requests are visible:

Iko.	P	Žadatel	Čísl...	Služba	Název požadavku	Stav	Poznámky	Termín	Naléhavost
22		David Ostrý (De...	22	IT podpora	Hlučný počítač	Předáno řeši...		24.1.2011 15:00	Nízká
23		Veronika Vlídna ...	23	IT podpora/Hardware	Potřebuji nový počítač	Analýza			Nízká
3		Petr Novák	3	Nákup	Nákup nového monitoru - LCD 24"	Předáno řeši...			Nízká

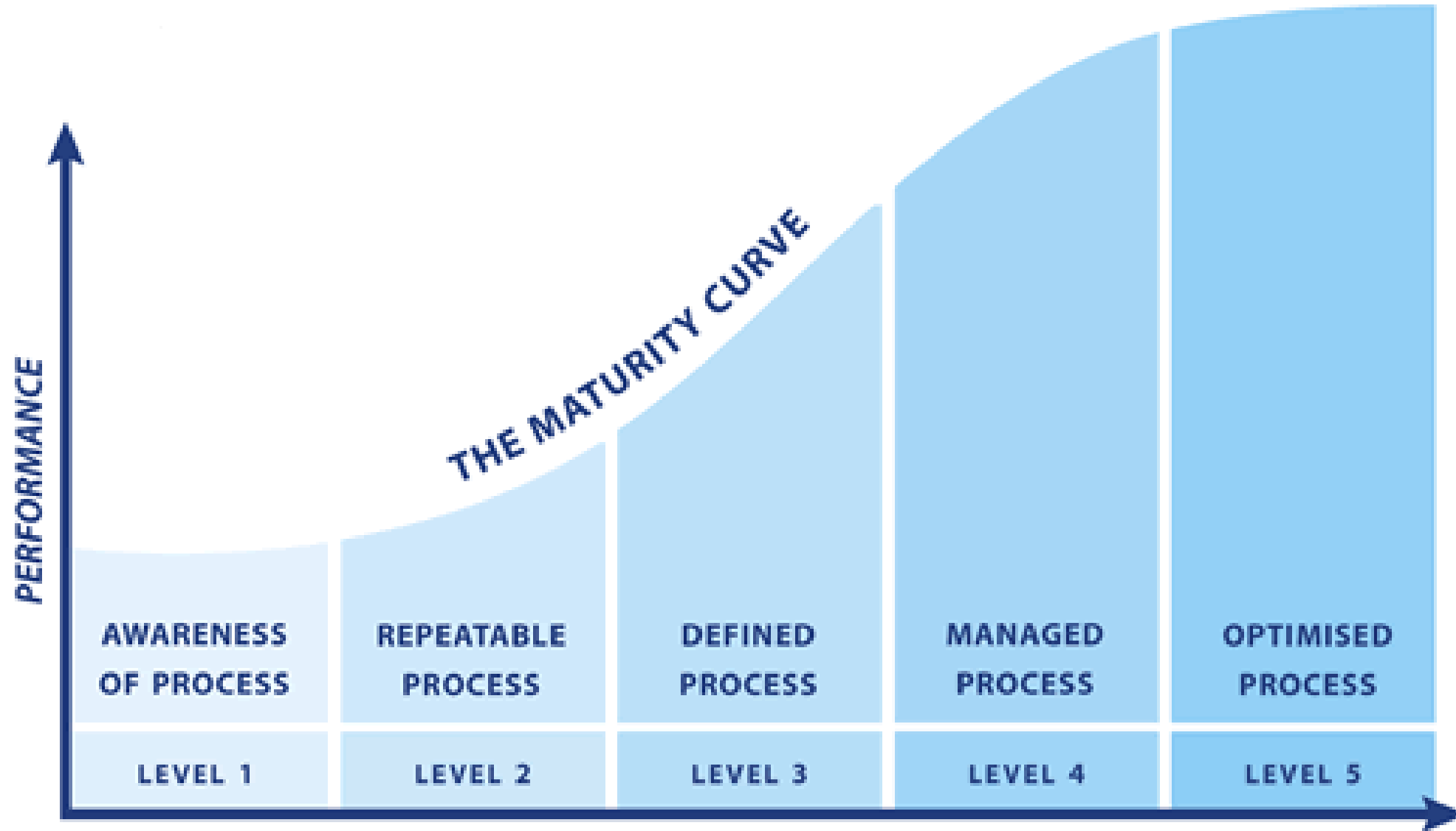
Below the list, the 'Veronika Vlídna (Demo)' profile is shown with the request title 'T23SD Potřebuji nový počítač'. The 'Pracovní postup' tab is active, displaying a workflow table:

Stav	Popis	Instrukce pro řešitele
Nový	Probíhá klasifikace požadavku na změnu.	Zkontrolujte, že se jedná o "Požadavek na změnu". Pokud ne, příkazem "Přesunout do jiné služby" požadavek přesuňte do správné služby. Určete prioritu řešení. Následně příkazem "Předat řešiteli" požadavek předejte konkrétnímu řešiteli k analýze.
Analýza	Probíhá analýza a návrh změny.	Prostudujte návrh na změnu. Ověřte si u zadavatele, že dobře rozumíte požadavku. Vypracujte návrh změny.
Schvalování	Probíhá schvalování návrhu na změnu.	Příkazem "Nechat schválit" předejte návrh změny ke schválení. Po úspěšném schválení jej předejte k naplánování.
Plánování	Probíhá plánování realizace změny.	Naplánujte realizaci změny. Až přijde vhodný okamžik, předejte požadavek do realizace.
Realizace	Probíhá realizace změny.	Realizujte změnu podle schváleného návrhu.
Testování	Probíhá testování po provedení změny.	Otestujte změnu podle schváleného návrhu.
Uzavřeno	Řešení požadavku bylo ukončeno. Požadavek je uzavřený.	
Mimořádné stavy		

At the bottom right of the interface, it shows '#pořadí/celkem: #2/3'.

Jednotlivé instrukce chodí v každém kroku mailem v notifikacích.

Process Maturity



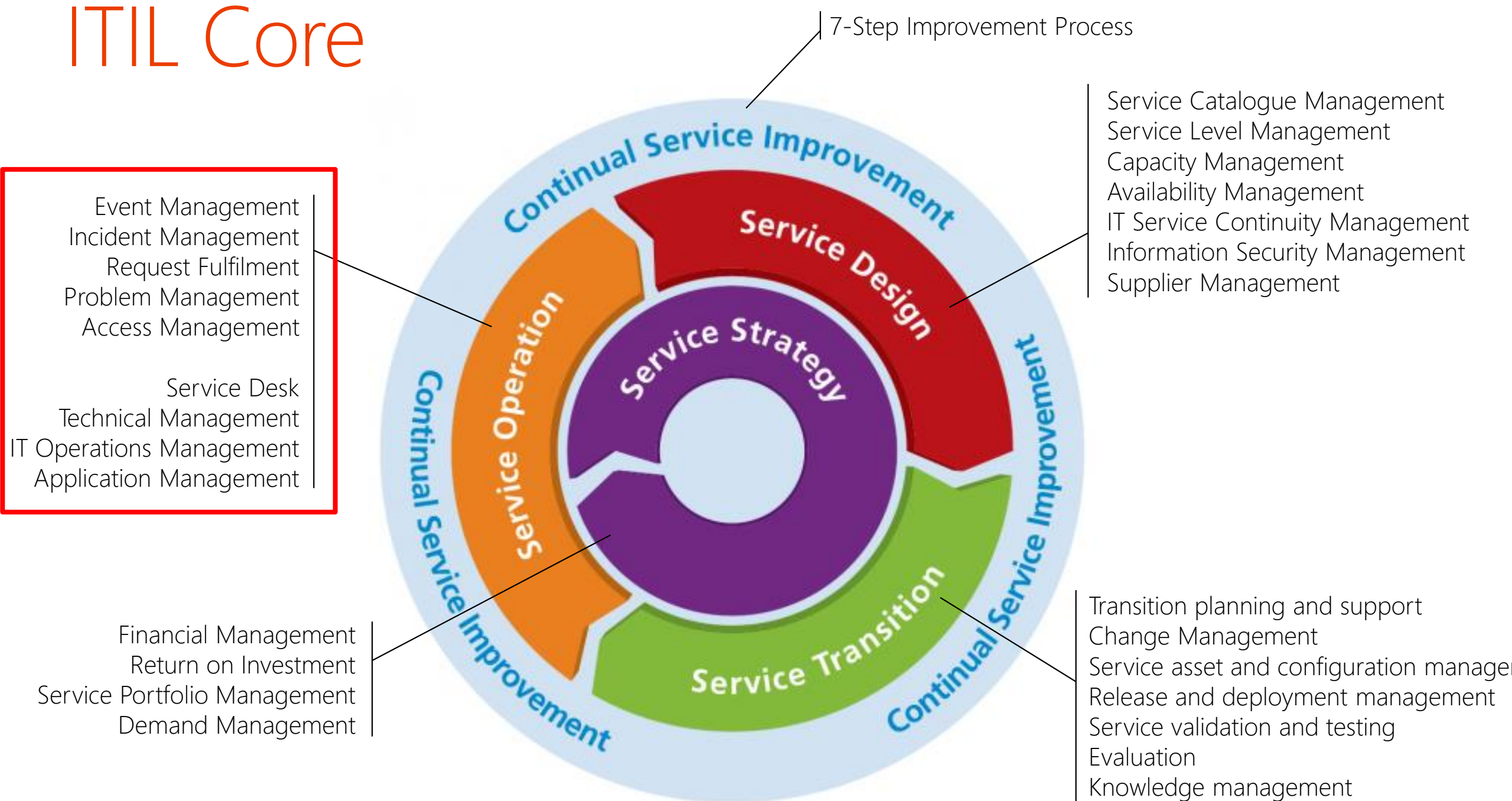
Jak nastavovat procesy?

Obcházení procesu musí být složitější než jeho dodržení.

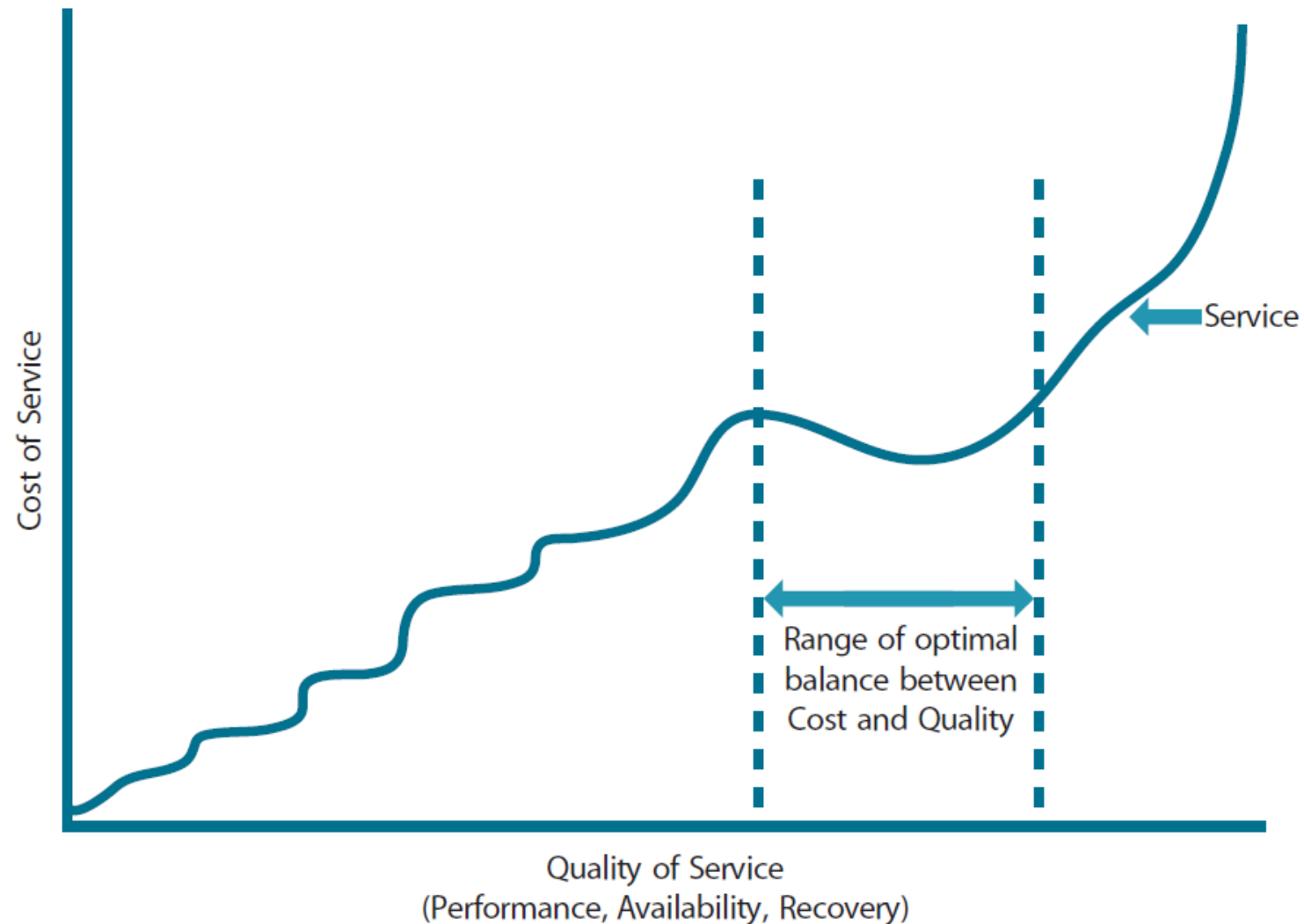


Service Operation

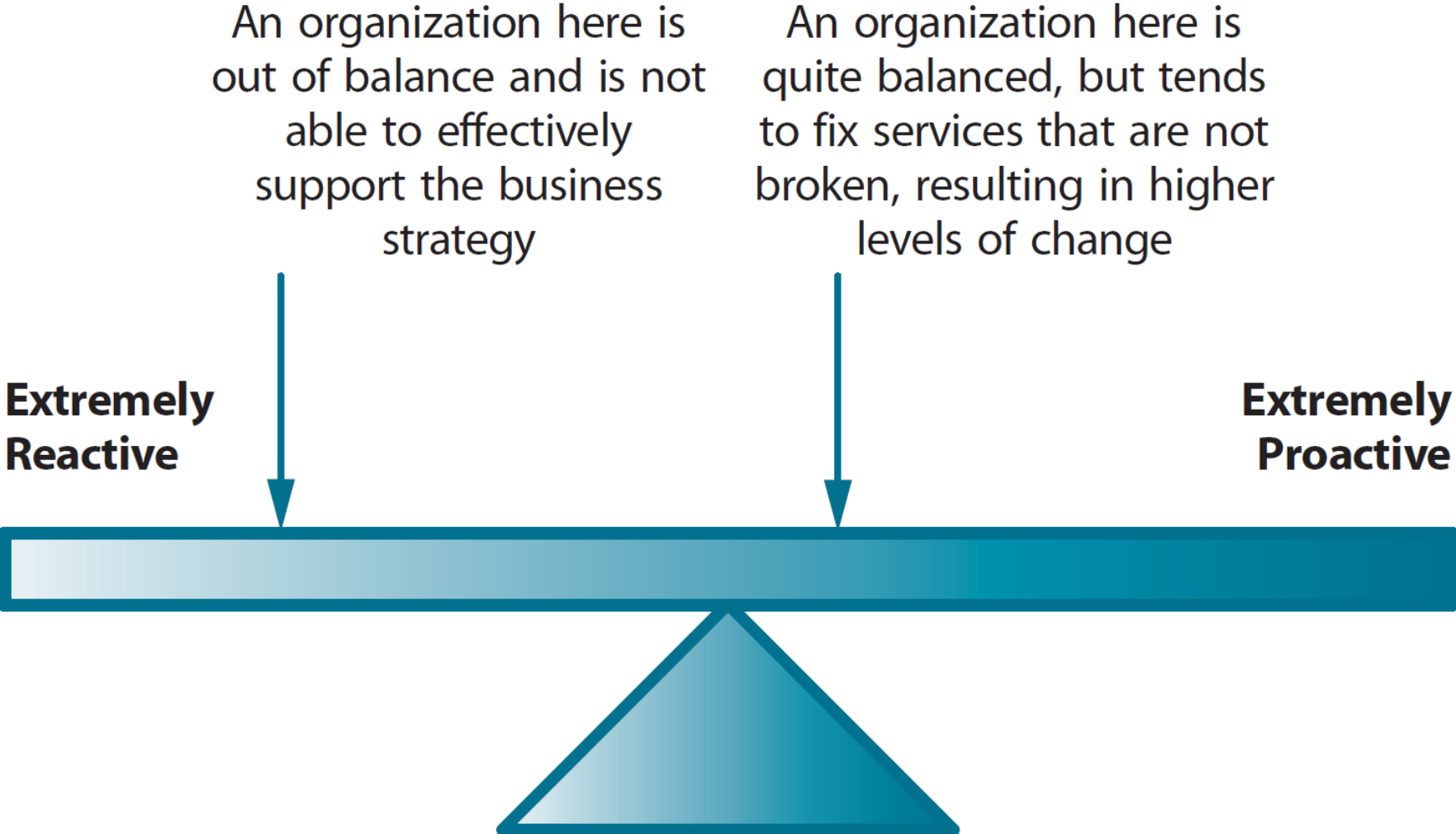
ITIL Core



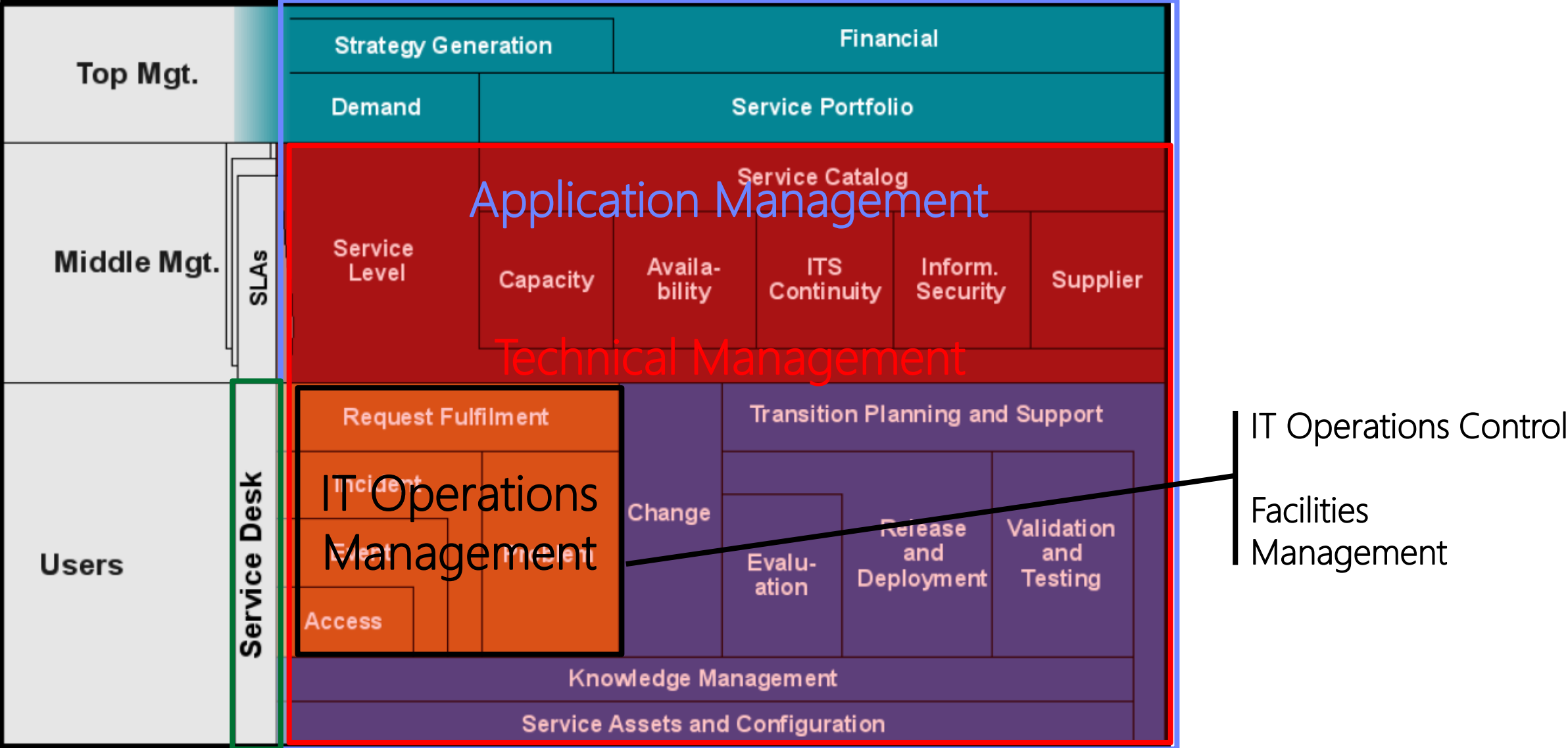
Balancing service quality and cost



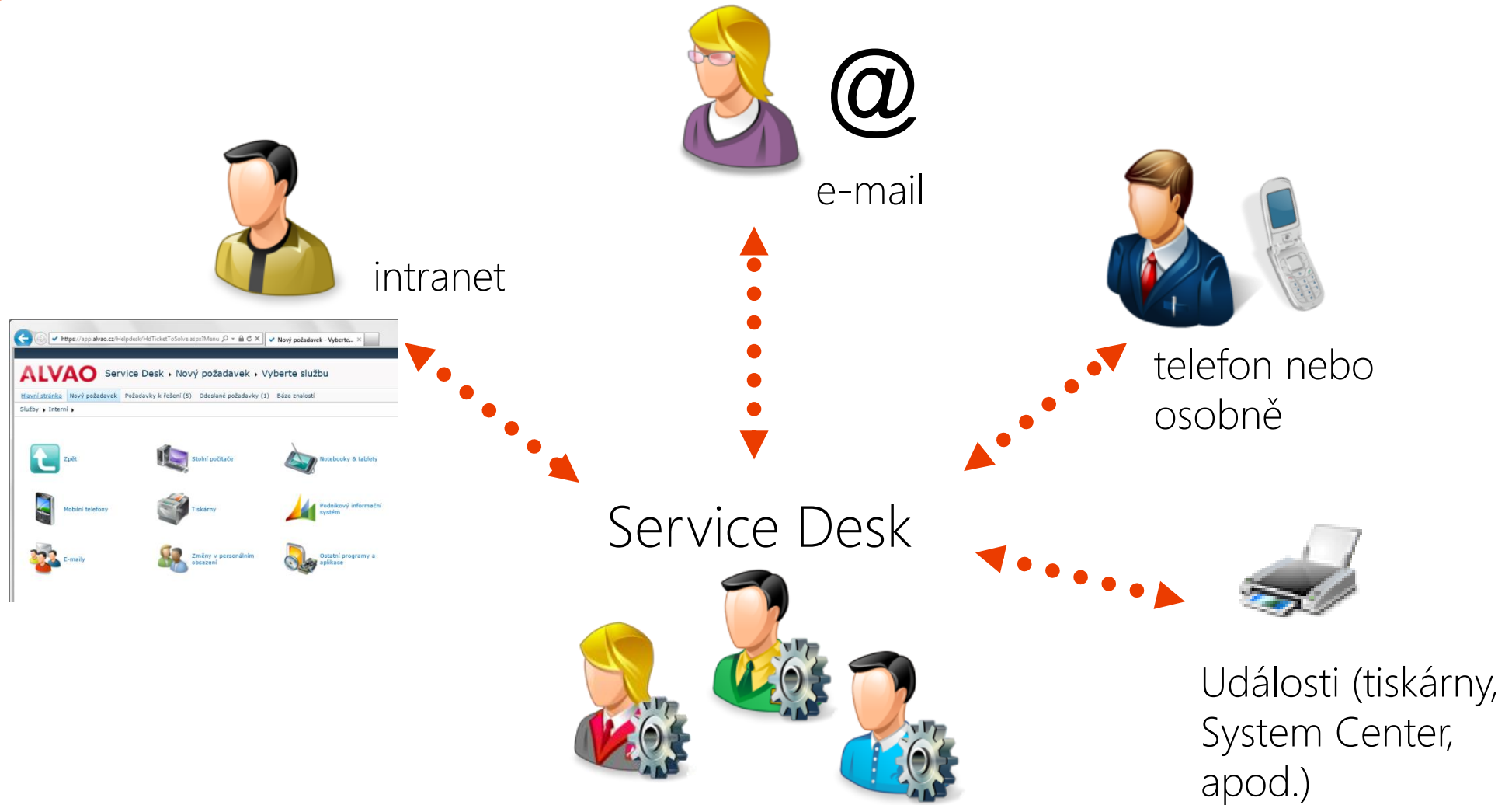
Reactive vs. Proactive



Service Operation - Functions



Single Point of Contact (SPOC)





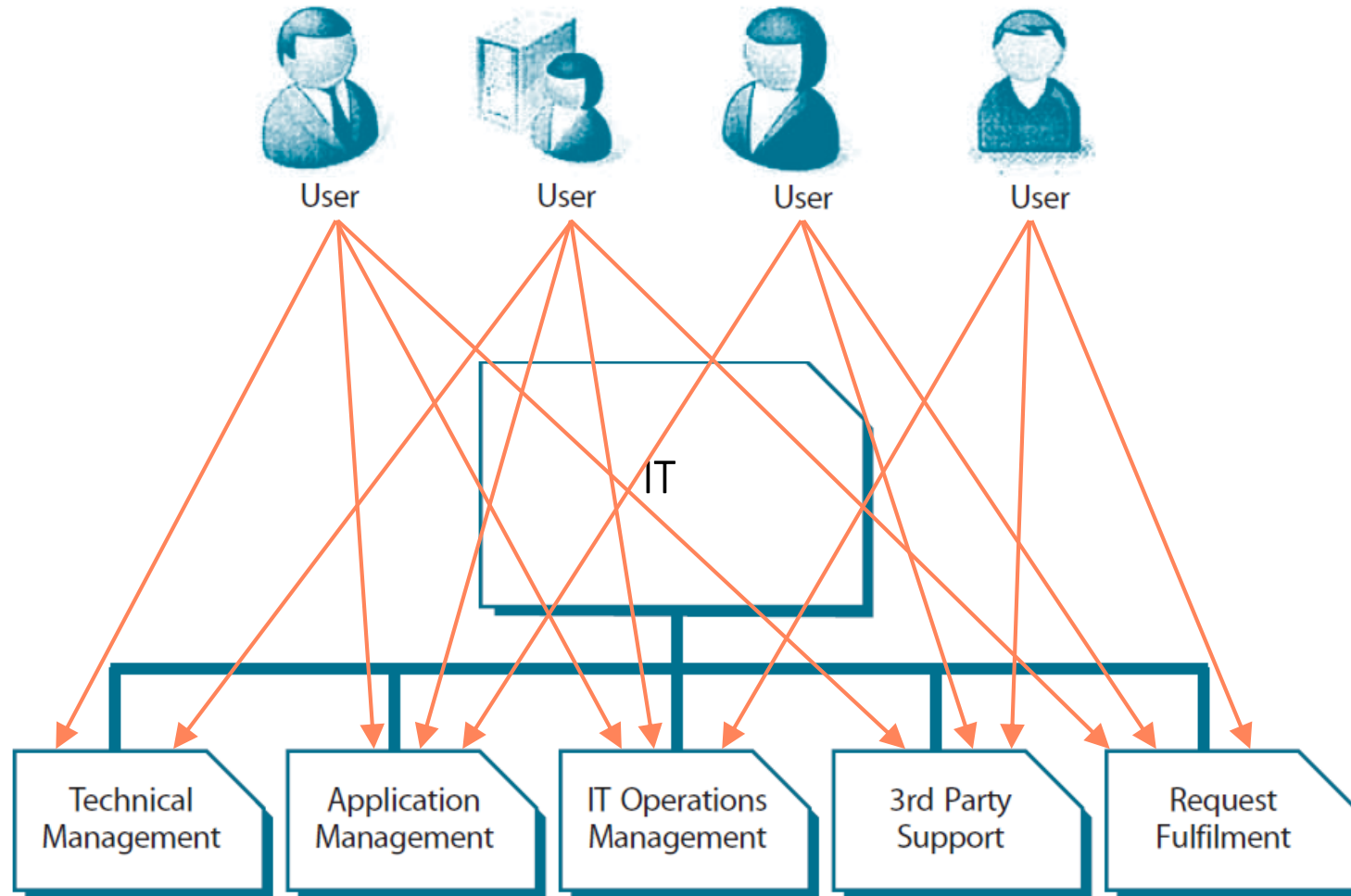
Service Desk

ITIL: Service Operation

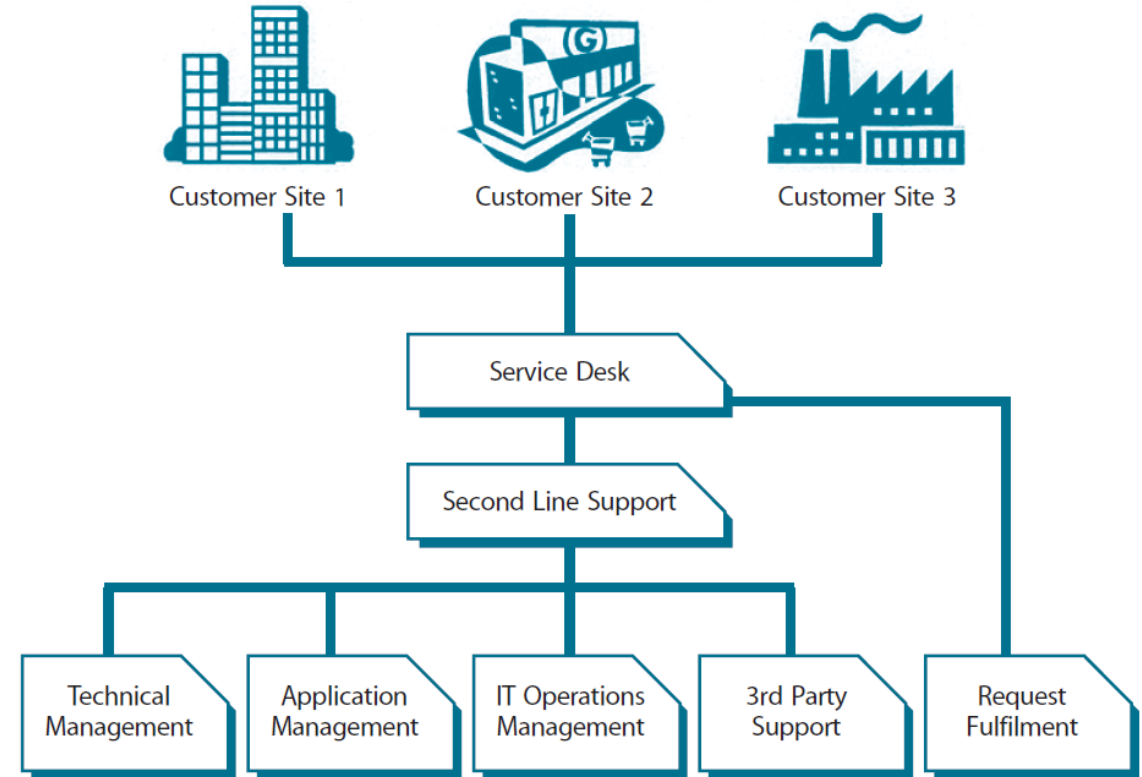
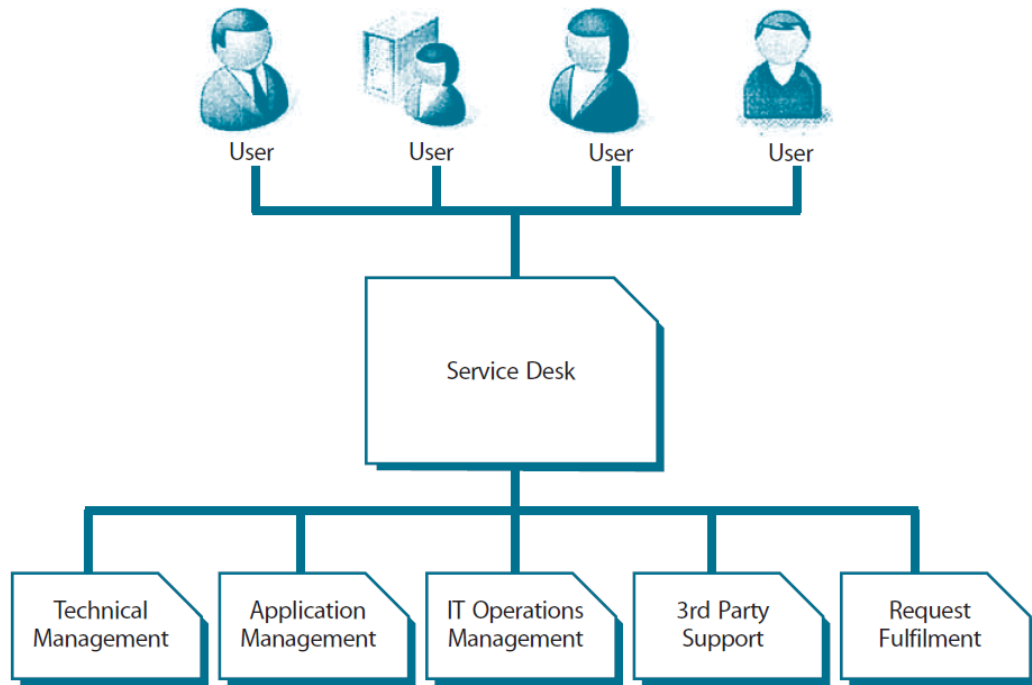
Service Desk

A Service Desk is a functional unit made up of a dedicated number of staff responsible for dealing with a variety of service events, often made via telephone calls, web interface, or automatically reported infrastructure events.

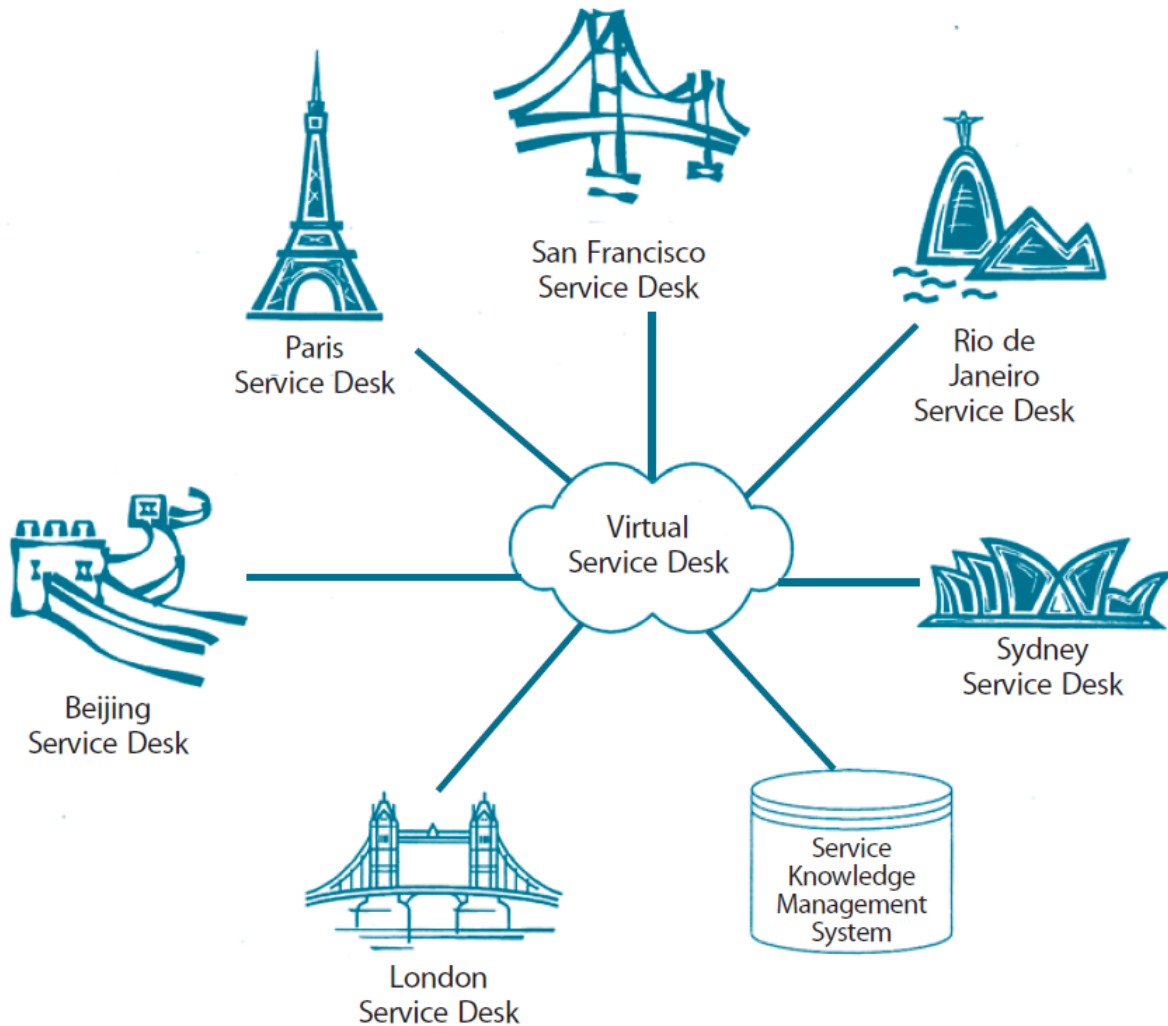
No Service Desk



Service Desk: Local vs. Central



SD: Virtual & Global 'follow the sun'



Service Desk objectives

Logging all relevant incident/service request

Providing first-line investigation and diagnosis

Resolving those incidents/service requests

Escalating incidents/service requests

Keeping users informed of progress

Conducting customer/user satisfaction callbacks/surveys as agreed

Updating the CMS

Service Operation - Processes

Event Management

Incident Management

Request Fulfilment

Problem Management

Access Management



Event Management

ITIL: Service Operation

Event Management

Event Management is the process that monitors all events that occur through the IT infrastructure to allow for normal operation and also to detect and escalate exception conditions.

Monitoring vs. Event Management

These two areas are very closely related, but slightly different in nature. Event Management is focused on generating and detecting meaningful notifications about the status of the IT Infrastructure and services.

For example, monitoring tools will check the status of a device to ensure that it is operating within acceptable limits, even if that device is not generating events.

Event

An event can be defined as any detectable or discernible occurrence that has significance for the management of the IT Infrastructure or the delivery of IT service and evaluation of the impact a deviation might cause to the services.

Events are typically notifications created by an IT service, Configuration Item (CI) or monitoring tool.

Categories of Event

Informational - user logs in, job completes successfully, device has come online...

Warning - memory on a server is currently at 65% and increasing, collision rate on a network has increased by 15% over the past hour...

Exception - server is down, response time of network has slowed to more than 15 seconds, more than 150 users have logged on to the General Ledger application...

Process

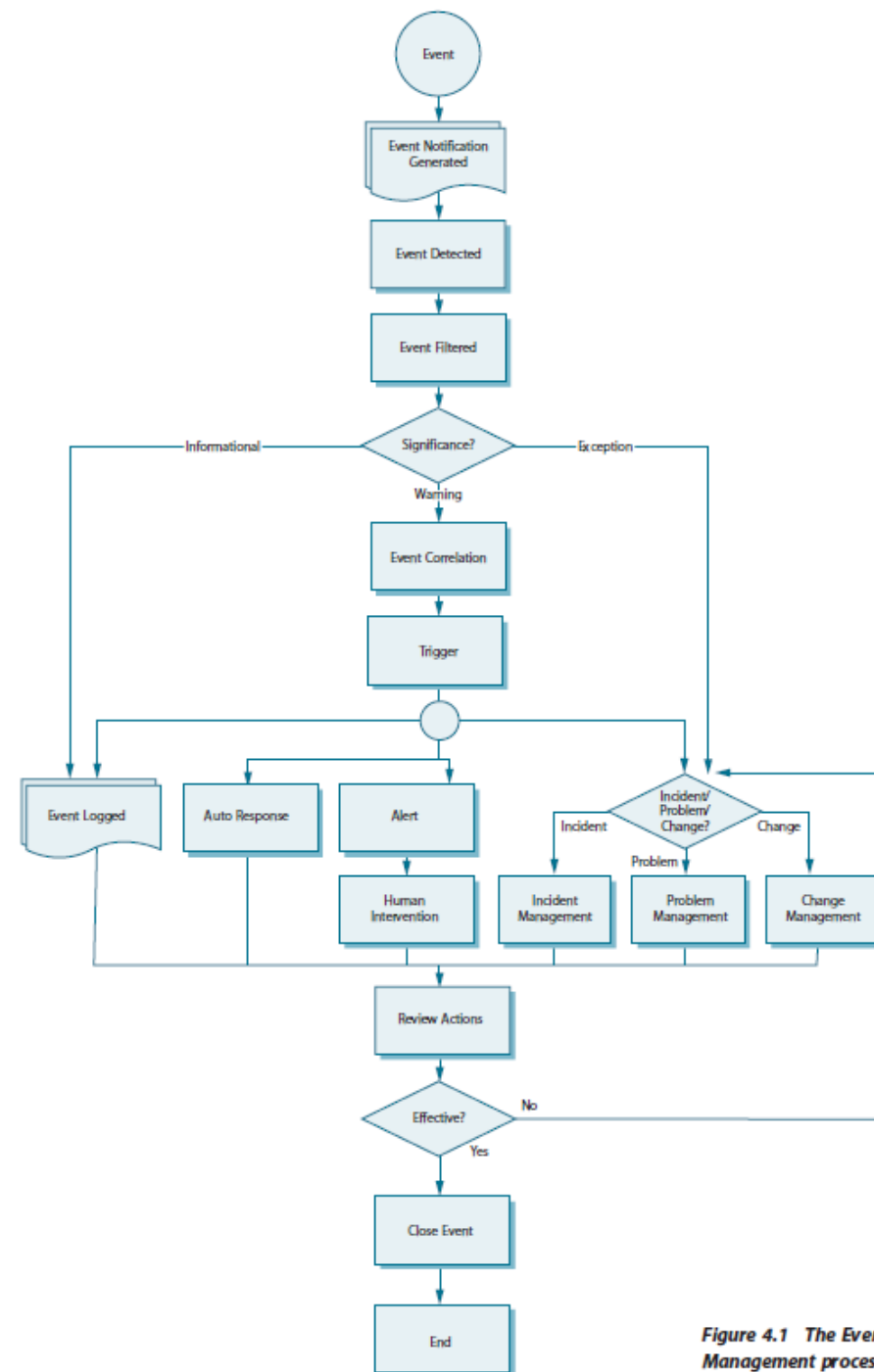
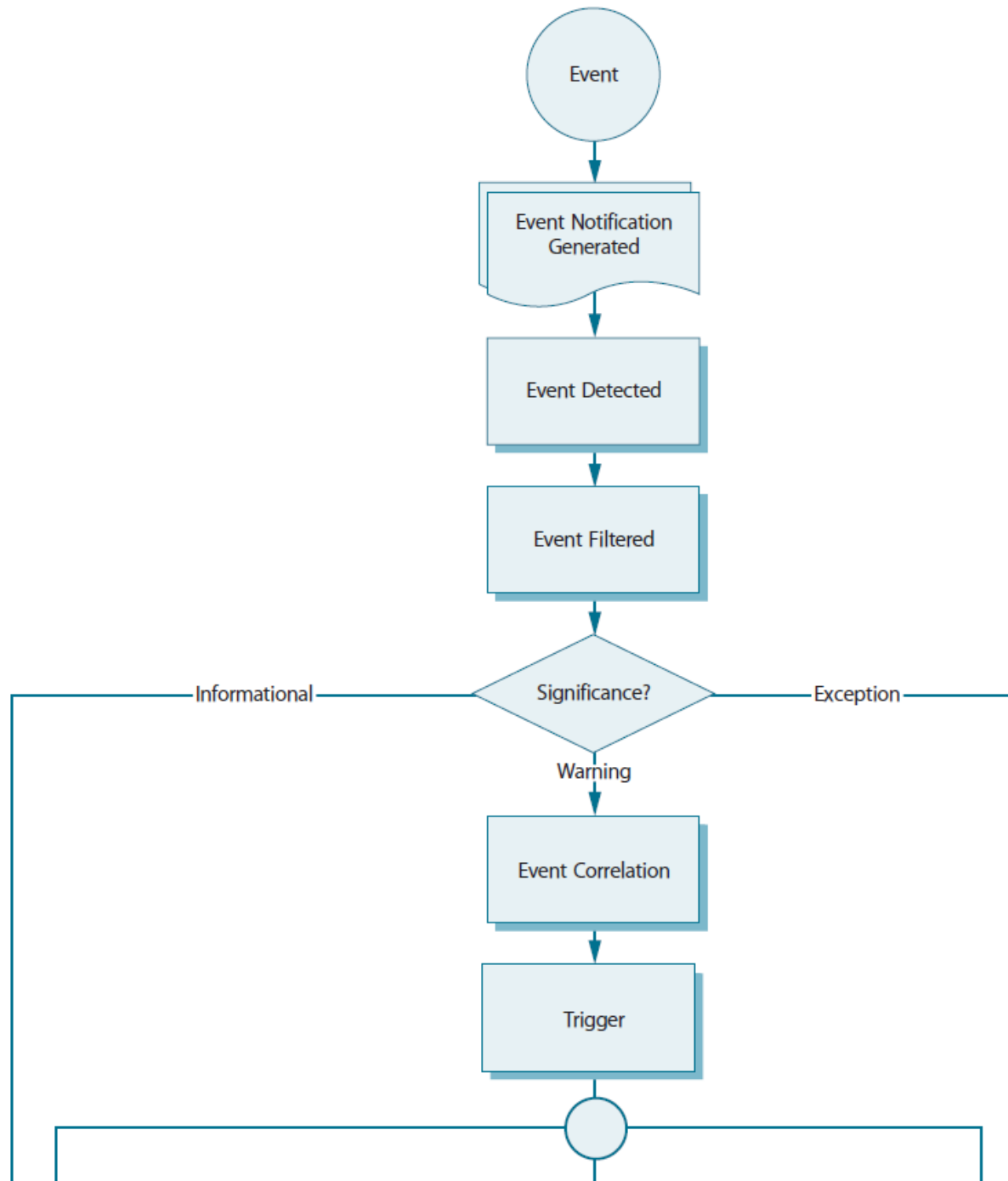


Figure 4.1 The Event Management process



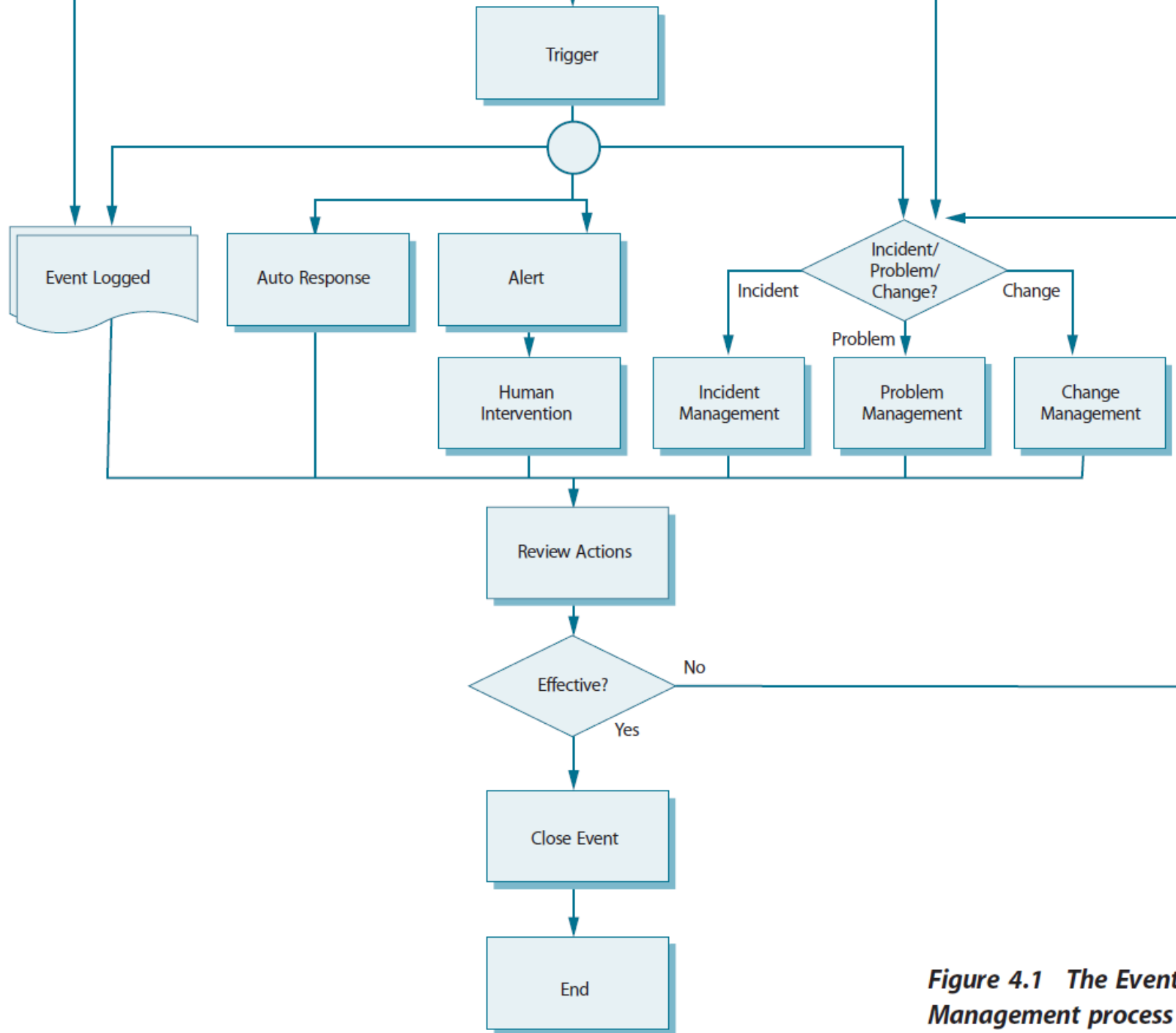
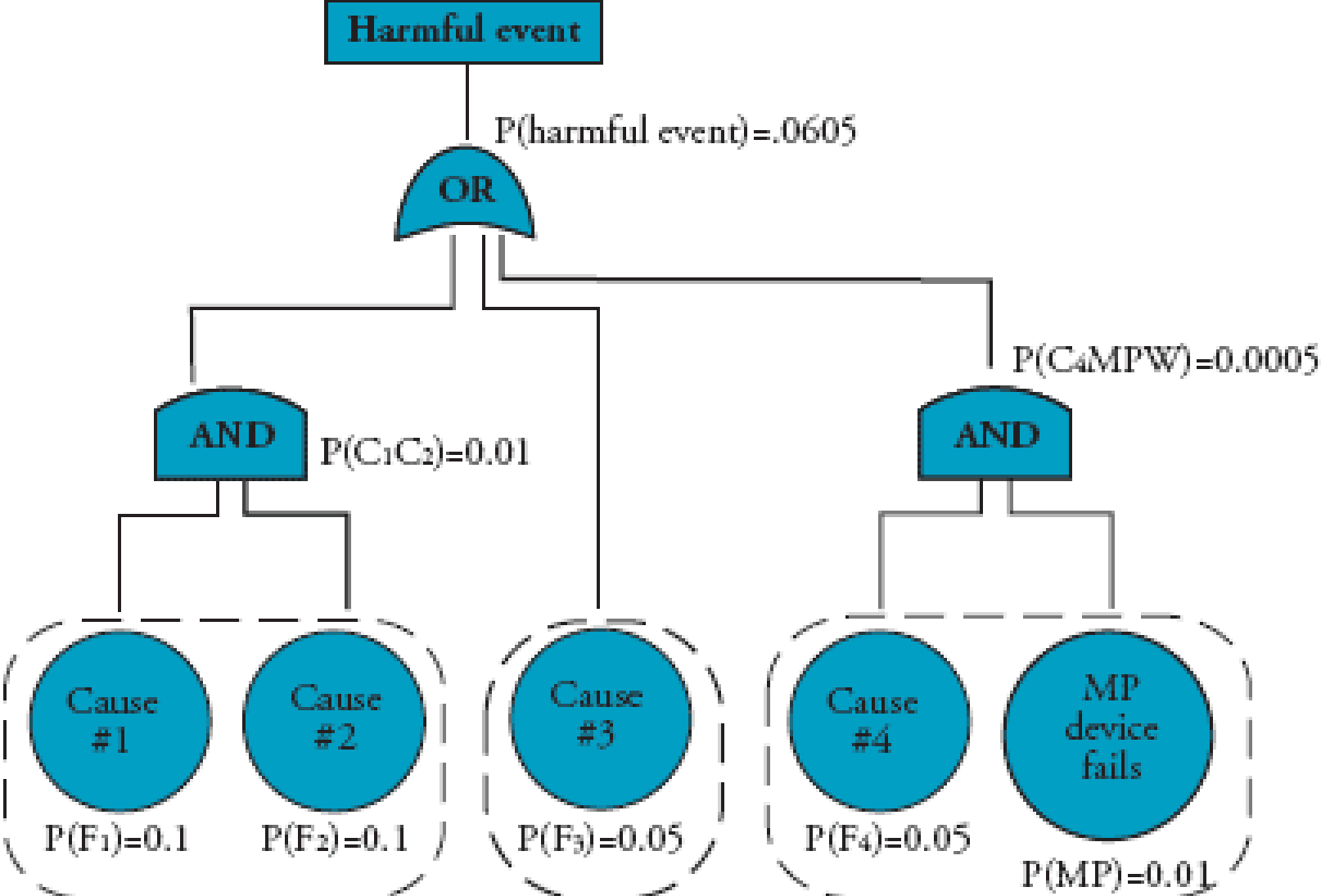
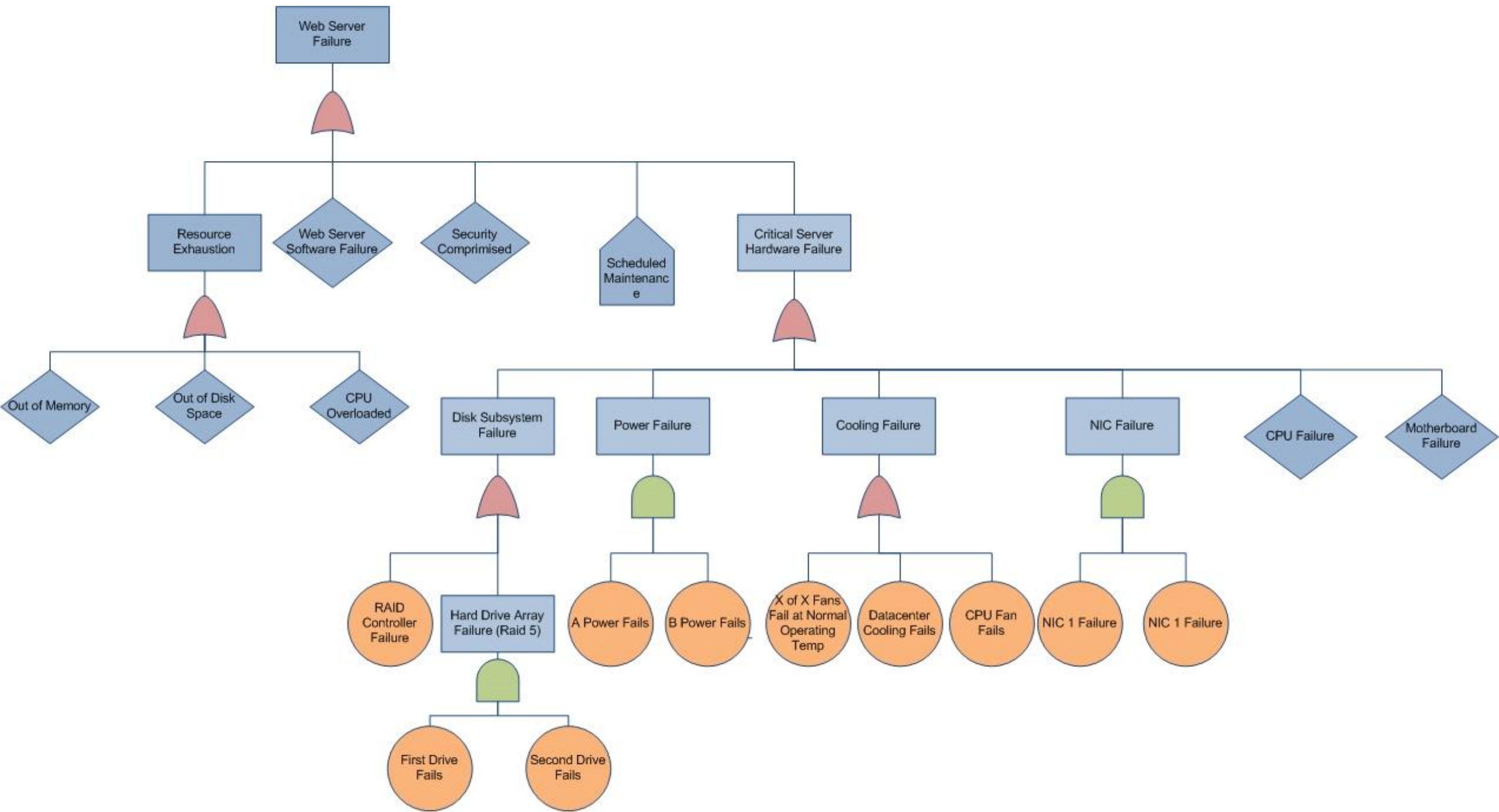


Figure 4.1 *The Event Management process*

Event Tree Analysis





Metrics

Number of events by category

Number of events by significance

Number and percentage of events that required human intervention and whether this was performed

Number and percentage of events that resulted in incidents or changes

Critical Success Factors

Achieving the correct level of filtering:

- Integrate Event Management into all Service Management processes where feasible.
- Design new services with Event Management in mind.
- Trial and error. No matter how thoroughly Event Management is prepared, there will be classes of events that are not properly filtered. Event Management must therefore include a formal process to evaluate the effectiveness of filtering.

For example, a user logging into a system today is normal, but if that user leaves the organization and tries to log in it is a security breach.



Incident Management

ITIL: Service Operation

Incident

An unplanned interruption to an IT service or reduction in the quality of an IT service. Failure of a configuration item that has not yet impacted service is also an incident, for example failure of one disk from a mirror set.

Incident Management

Incident Management concentrates on restoring the service to users as quickly as possible, in order to minimize business impact.

Incident Management is the process for dealing with all incidents; this can include failures, questions or queries reported by the users (usually via a telephone call to the Service Desk), by technical staff, or automatically detected and reported by event monitoring tools.

Main objectives of IM

The primary goal of the Incident Management process is to restore normal service operation as quickly as possible and minimize the adverse impact on business operations, thus ensuring that the best possible levels of service quality and availability are maintained.

'Normal service operation' is defined here as service operation within SLA limits.

Incident categorization

Part of the initial logging must be to allocate suitable incident categorization coding so that the exact type of the call is recorded.

This will be important later when looking at incident types/frequencies to establish trends for use in Problem Management, Supplier Management and other ITSM activities.

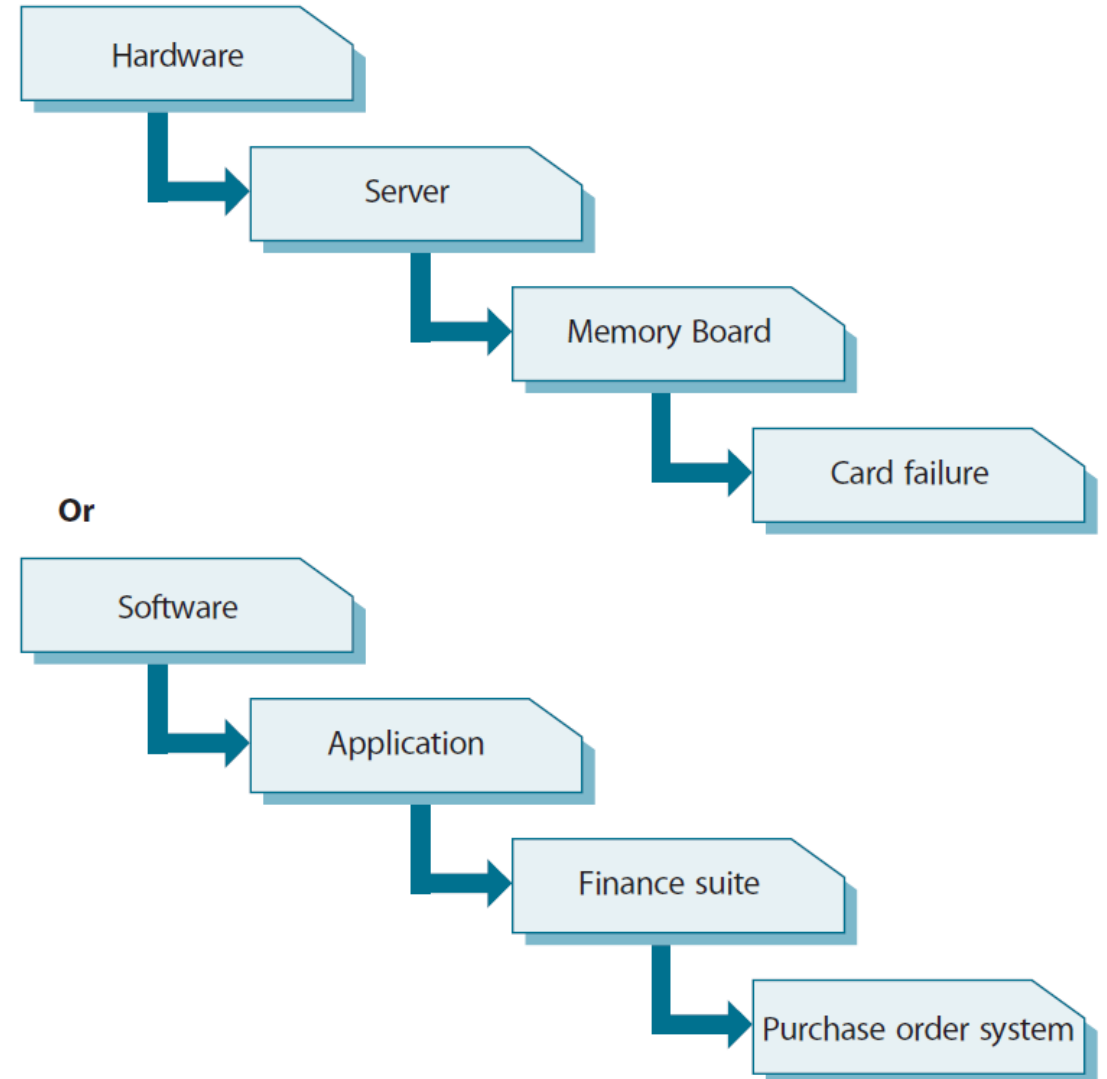
Incident categorization

Initial categorization

Closure categorization

Affected Service?

Service Requests?



Incident prioritization

Impact is often the number of users being affected.

Urgency is how quickly the business needs a resolution

			Impact	
		High	Medium	Low
	High	1	2	3
Urgency	Medium	2	3	4
	Low	3	4	5

Priority code	Description	Target resolution time
1	Critical	1 hour
2	High	8 hours
3	Medium	24 hours
4	Low	48 hours
5	Planning	Planned

Major incidents

A separate procedure, with shorter timescales and greater urgency, must be used for 'major' incidents. A definition of what constitutes a major incident must be agreed and ideally mapped on to the overall incident prioritization system – such that they will be dealt with through the major incident process.

Functional & Hierarchic escalation

Functional escalation

As soon as it becomes clear that the Service Desk is unable to resolve the incident itself (or when target times for first-point resolution have been exceeded – whichever comes first!) the incident must be immediately escalated for further support.

Hierarchic escalation

If incidents are of a serious nature (for example Priority 1 incidents) the appropriate IT managers must be notified, for informational purposes at least.

Process

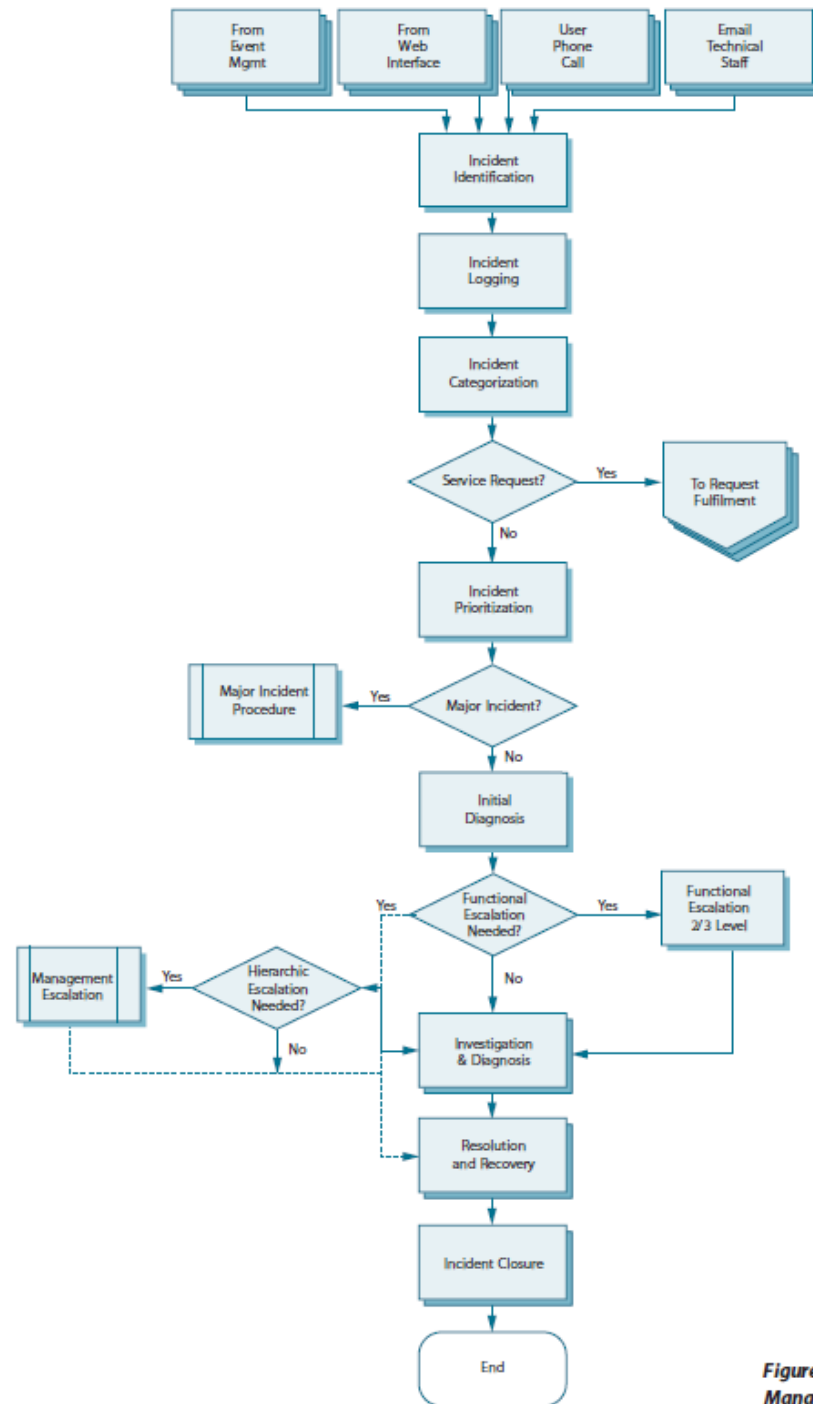
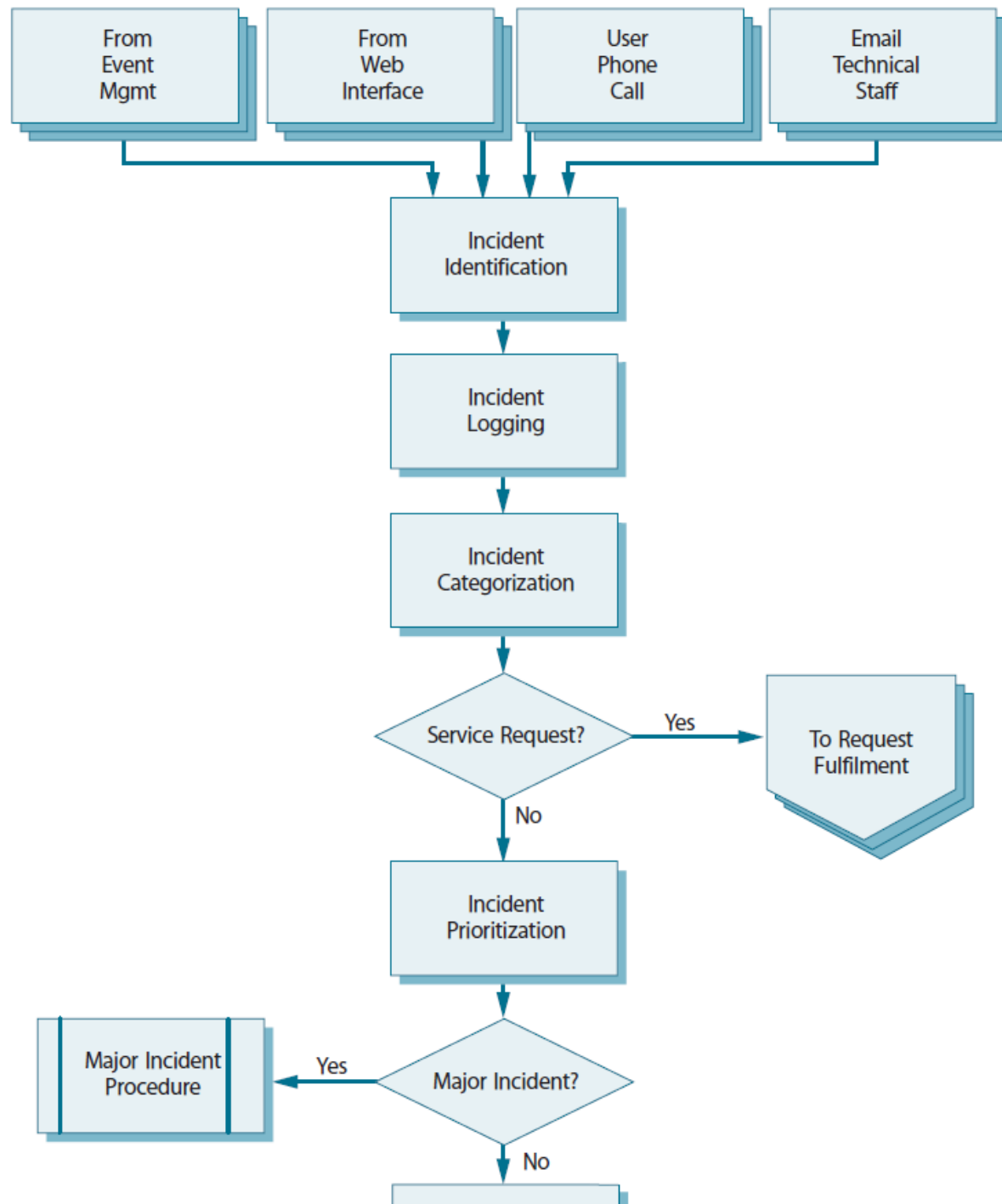


Figure 4.2 Incident Management process flow



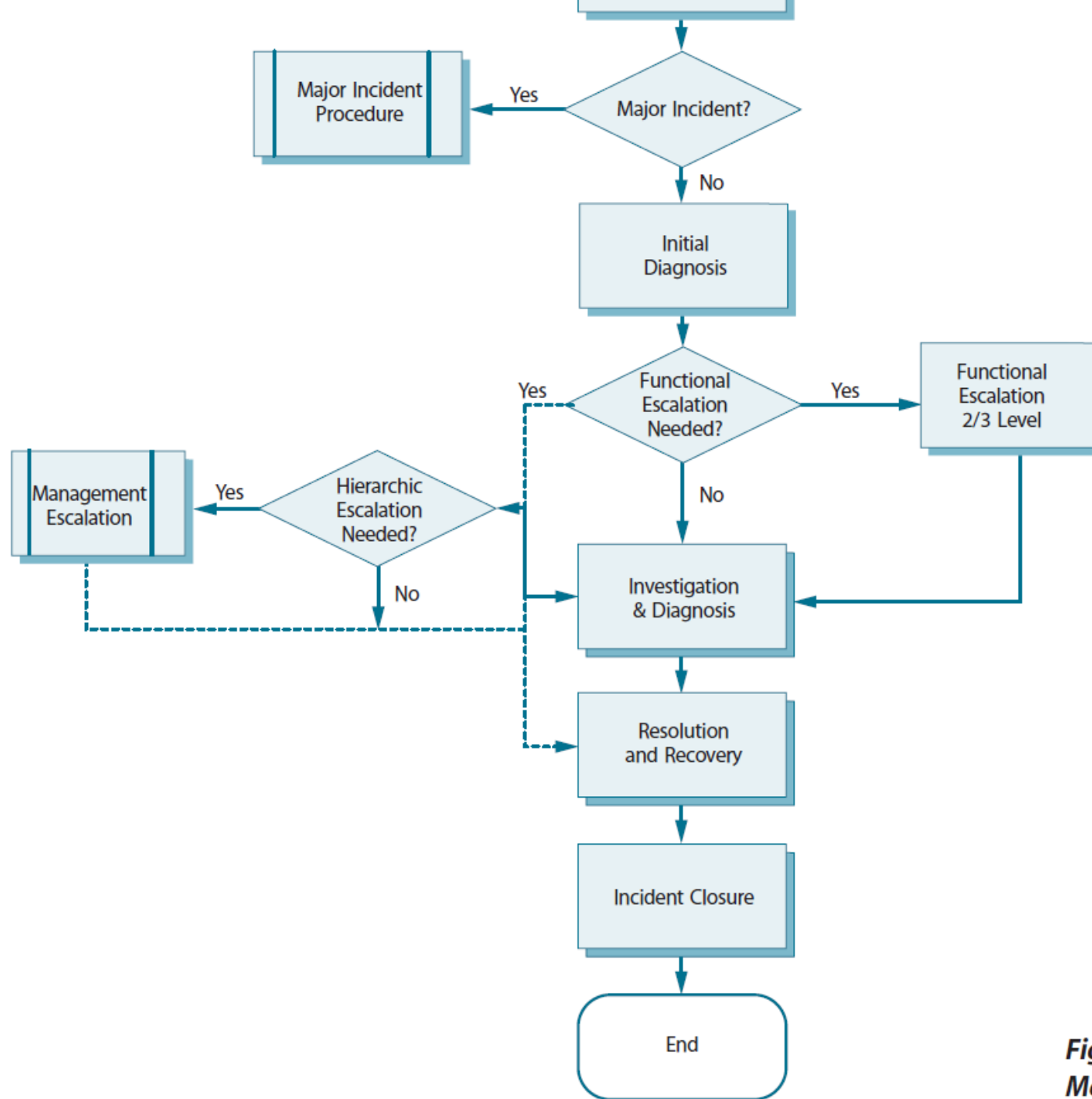


Figure 4.2 Incident Management process flow

Metrics

Total numbers of Incidents

Breakdown of incidents at each stage (e.g. logged, work in progress, closed etc)

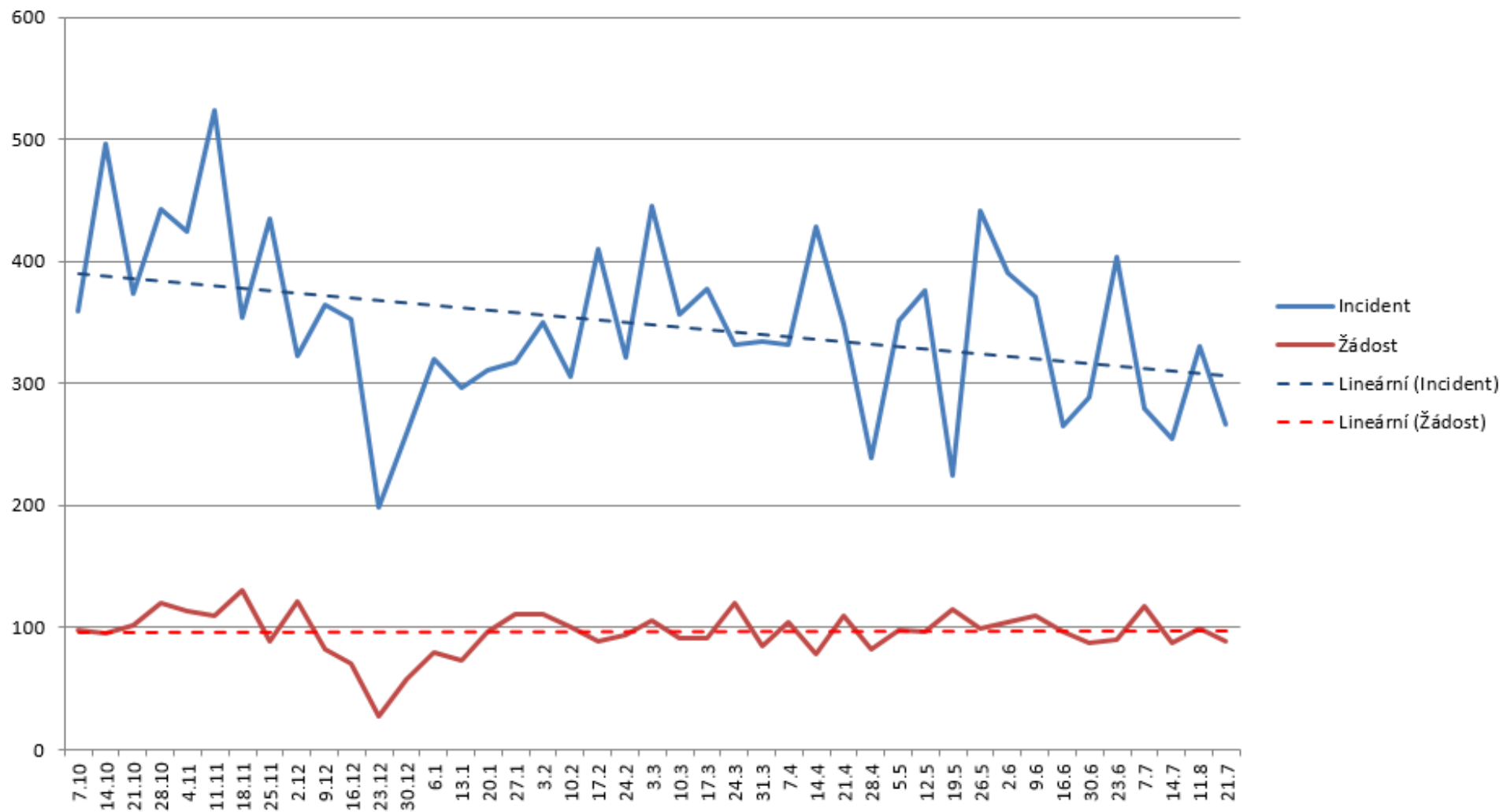
Size of current incident backlog

Number and percentage of major incidents

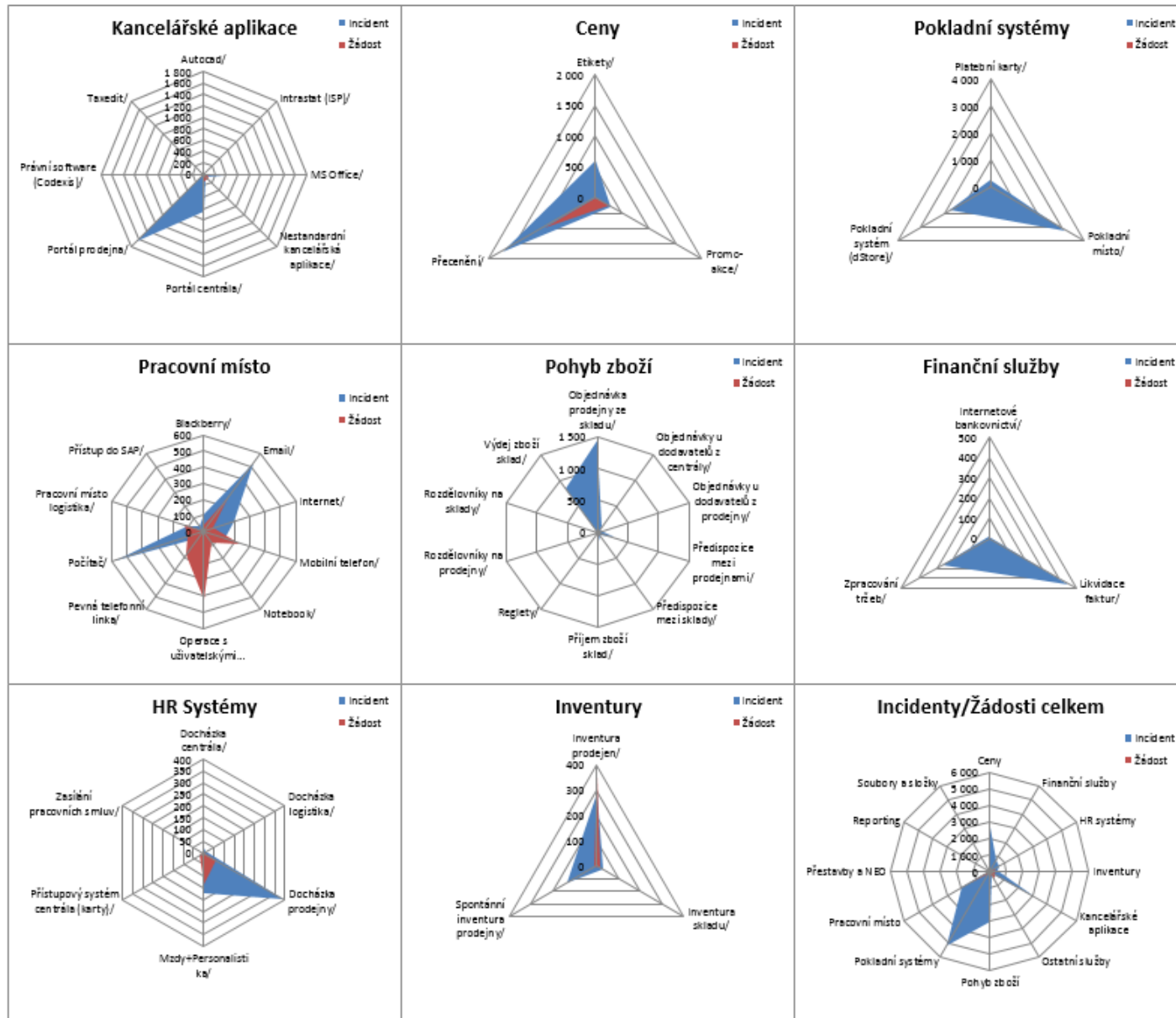
Number and percentage of incidents incorrectly assigned

Reports

Průtok Incidentů a Žádostí



Incidenty - sumarizace



Critical Success Factors

A good Service Desk is key to successful Incident Management

Clearly defined targets to work to – as defined in SLAs

Adequate customer-oriented and technically training support staff with the correct skill levels

Integrated support tools to drive and control the process

OLAs and UCs that are capable of influencing and shaping the correct behaviour of all support staff.



Request fulfilment

ITIL: Service Operation

Service Request

The term 'Service Request' is used as a generic description for many varying types of demands that are placed upon the IT Department by the users. Many of these are actually small changes – low risk, frequently occurring, low cost, etc. (e.g. a request to change a password, a request to install an additional software application onto a particular workstation, a request to relocate some items of desktop equipment) or maybe just a question requesting information

Low-cost & low-risk changes

their scale and frequent, low-risk nature means that they are better handled by a separate process, rather than being allowed to congest and obstruct the normal Incident and Change Management processes.

Service Requests will usually be satisfied by implementing a Standard Change.

Typically include some form of pre-approval by Change Management.

Service Catalogue

The screenshot shows a web browser window titled "Vyberte službu - Nový požadavek - Service Desk - Windows Internet Explorer". The address bar shows "http://localhost/ServiceDesk/". The page content includes the Penny Market logo and the breadcrumb "Service Desk > Nový požadavek > Vyberte službu". A navigation bar contains links for "Hlavní stránka", "Nový požadavek", "Požadavky k řešení (0)", "Odeslané požadavky (0)", and "Báze znalostí". Below this is a "Služby" section with a grid of service categories, each with an icon and a plus sign:

- Ceny (+)
- Finanční služby (+)
- HR systémy (+)
- Inventury (+)
- Kancelářské aplikace (+)
- Ostatní služby (+)
- Pohyb zboží (+)
- Pokladní systémy (+)
- Pracovní místo (+)
- Přestavby a NEO (+)
- Reporting (+)
- Soubory a složky (+)

Service Catalogue

The screenshot shows a web browser window titled "Vyberte službu - Nový požadavek - Service Desk - Windows Internet Explorer". The address bar shows "http://localhost/ServiceDesk/". The page content includes the Penny Market logo, a breadcrumb trail "Service Desk > Nový požadavek > Vyberte službu", and a navigation menu with items like "Hlavní stránka", "Nový požadavek", "Požadavky k řešení (0)", "Odeslané požadavky (0)", and "Báze znalostí". Below the menu, there is a "Služby > Pracovní místo >" section. The main area displays a grid of service icons: "Zpět", "Blackberry (+)", "Email (+)", "Internet (+)", "Mobilní telefon (+)", "Notebook (+)", "Operace s uživatelskými účty (+)", "Pevná telefonní linka (+)", "Počítač (+)", and "Pracovní místo logistika (+)". A highlighted section at the bottom is labeled "Pracovní místo".

Metrics

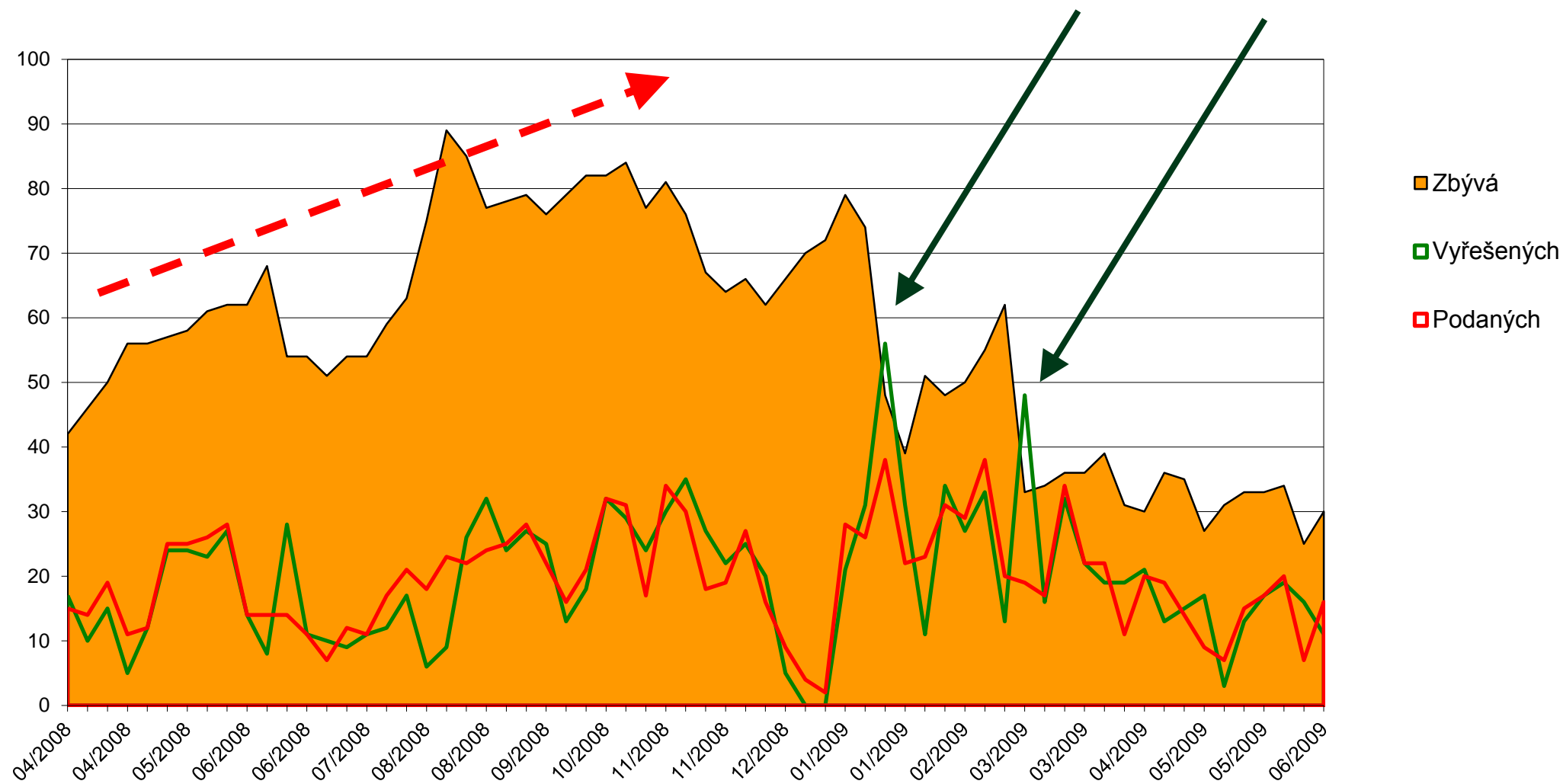
The total number of Service Requests (as a control measure)

Breakdown of service requests at each stage (e.g. logged, WIP, closed, etc.)

The size of current backlog of outstanding Service Requests

The mean elapsed time for handling each type of Service Request

Reports





Problem Management

ITIL: Service Operation

Problem

ITIL defines a 'problem' as the unknown cause of one or more incidents.

Problem Management

Problem Management is the process responsible for managing the lifecycle of all problems.

The primary objectives of Problem Management are to **prevent problems** and resulting **incidents** from happening, to **eliminate recurring incidents** and to minimize the impact of incidents that cannot be prevented.

Problem detection

Suspicion or detection of an unknown cause of one or more **incidents** by the Service Desk

Analysis of **incidents** as part of proactive Problem Management

Automated detection of an infrastructure or application fault, using **event/alert** tools

A notification from a supplier or contractor

Problem Prioritization

Can the system be recovered / replaced?

How much will it cost?

How many people, with what skills, will be needed to fix the problem?

How long will it take to fix the problem?

How extensive is the problem (e.g. how many CIs are affected)?

Impact of a Problem

The Configuration Management System (CMS) must be used to help determine the level of impact and to assist in pinpointing and diagnosing the exact point of failure.

The Know Error Database (KEDB) should also be accessed and problem-matching techniques (such as key word searches) should be used to see if the problem has occurred before and, if so, to find the resolution.

Problem analysis / solving techniques

Chronological Analysis

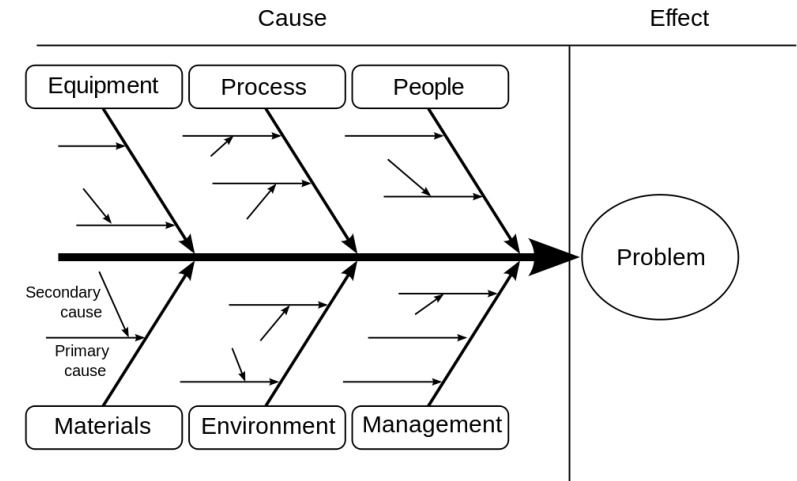
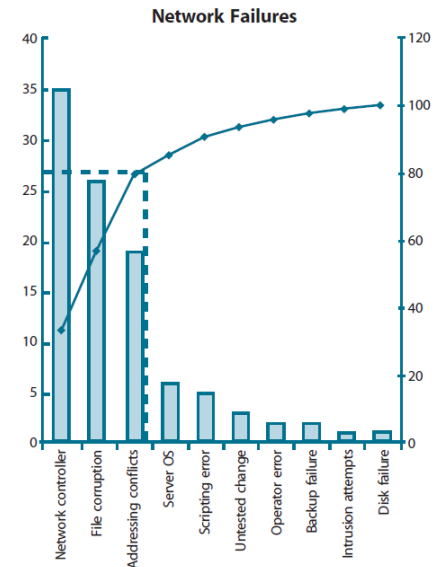
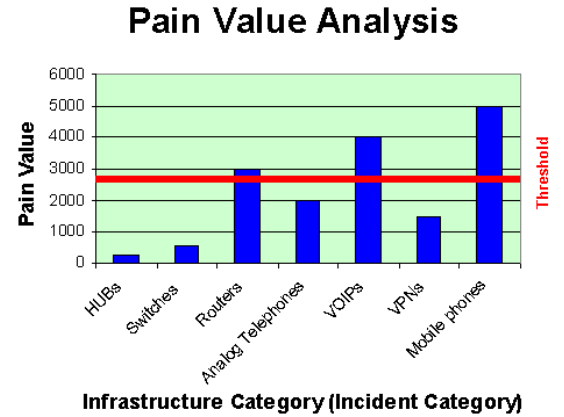
Pain Value Analysis

Kepner and Tregoe

Brainstorming

Ishikawa Diagrams

Pareto Analysis



Workaround

In some cases it may be possible to find a **workaround** to the incidents caused by the problem – a temporary way of overcoming the difficulties. For example, a manual amendment may be made to an input file to allow a program to complete its run successfully.

Known Error Record

As soon as the diagnosis is complete, and particularly where a workaround has been found (even though it may not yet be a permanent resolution), a **Known Error Record** must be raised and placed in the Known Error Database – so that if further incidents or problems arise, they can be identified and the service restored more quickly.

Major Problem Review

Those things that were done correctly

Those things that were done wrong

What could be done better in the future

How to prevent recurrence

Whether there has been any third-party responsibility and whether follow-up actions are needed.

Problem Closure

When any **change** has been completed (and reviewed), and the resolution has been applied, the Problem should be formally closed – as should any related **Incident** that are still open. Problem record contains a full historical description of all **events**.

The status of any related **Known Error Record** should be updated to shown that the resolution has been applied.

Process

Problem Management consists of two major processes:

- Reactive Problem Management, which is generally executed as part of Service Operation
- Proactive Problem Management which is initiated in Service Operation, but generally driven as part of Continual Service Improvement

Process

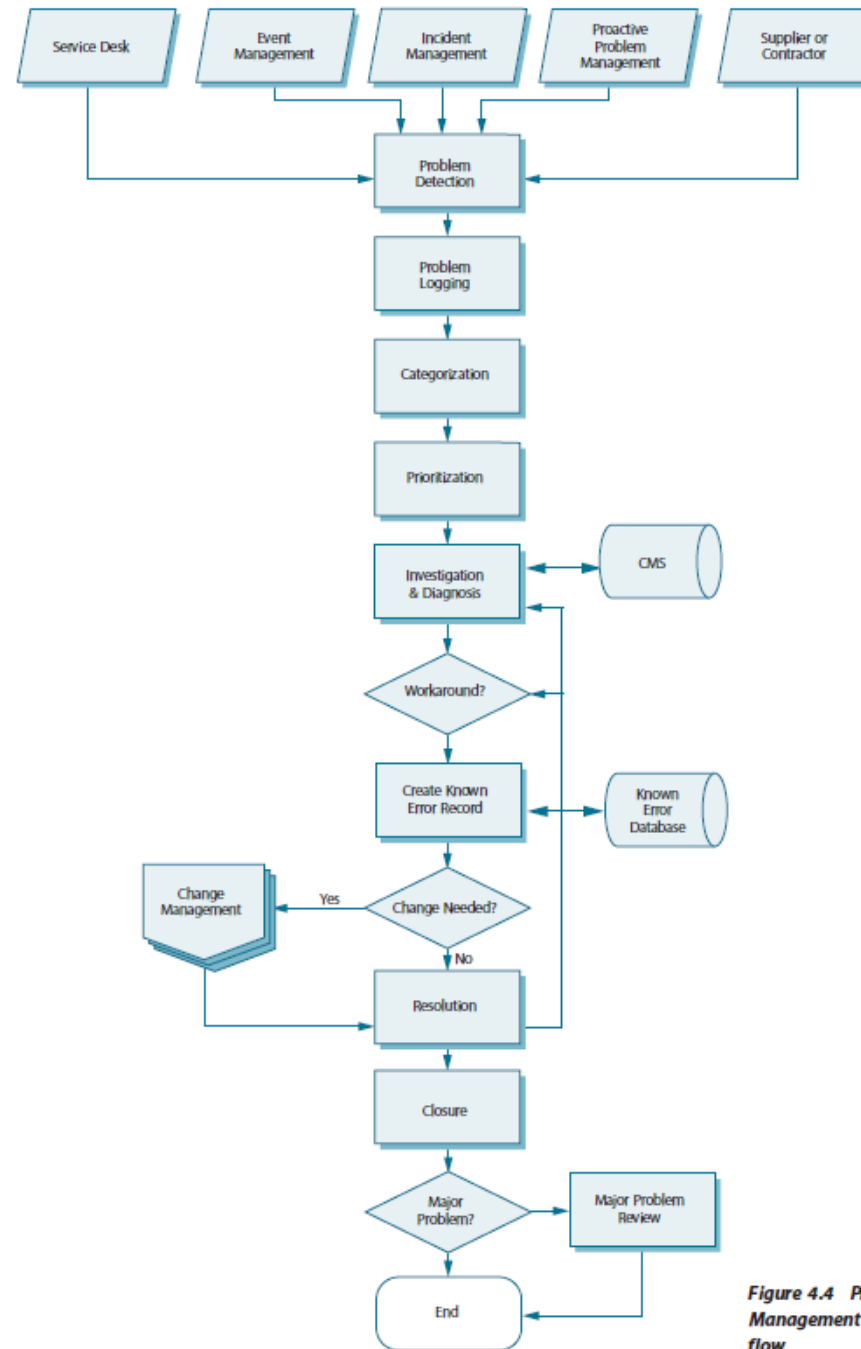
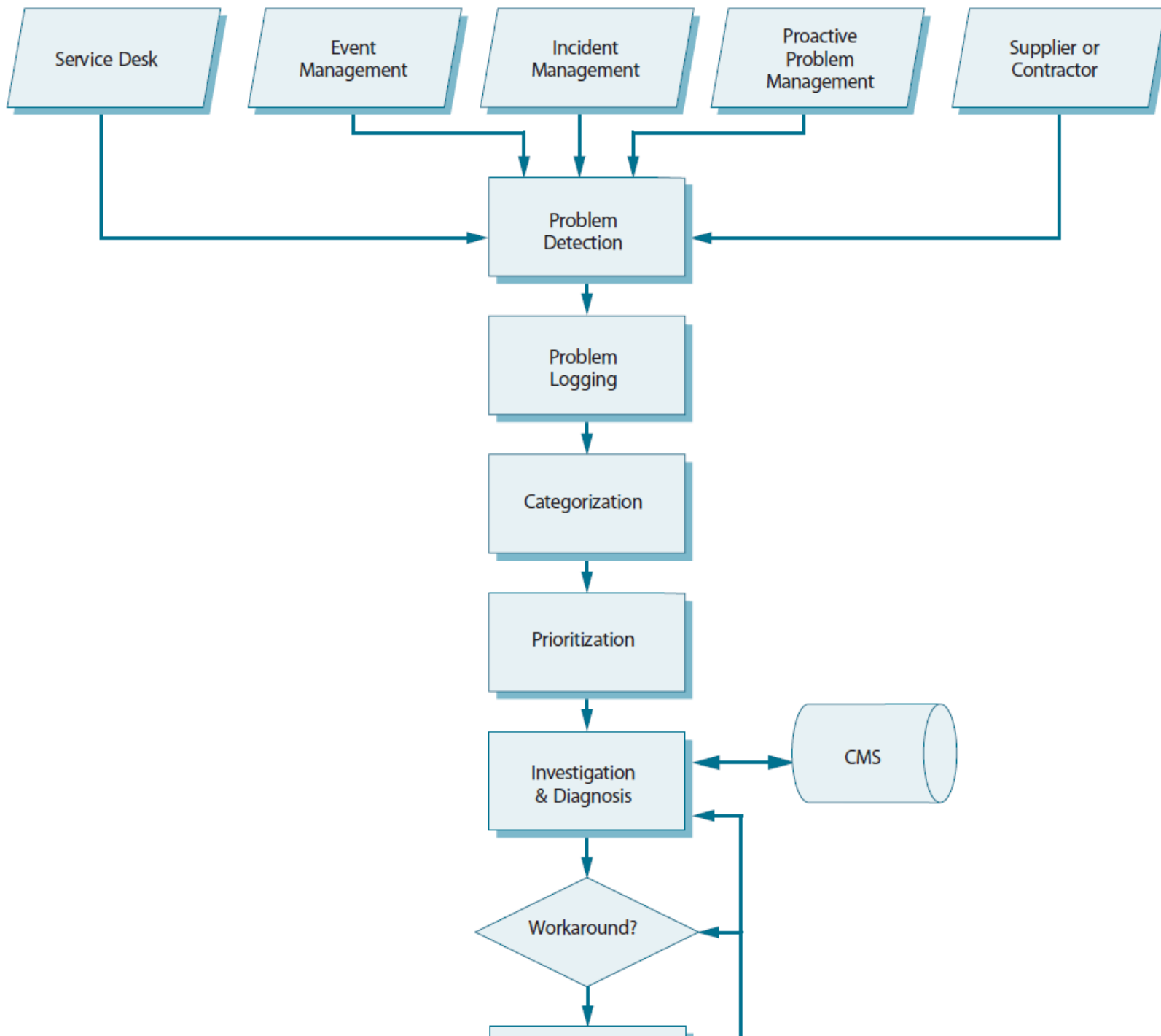


Figure 4.4 Problem Management process flow



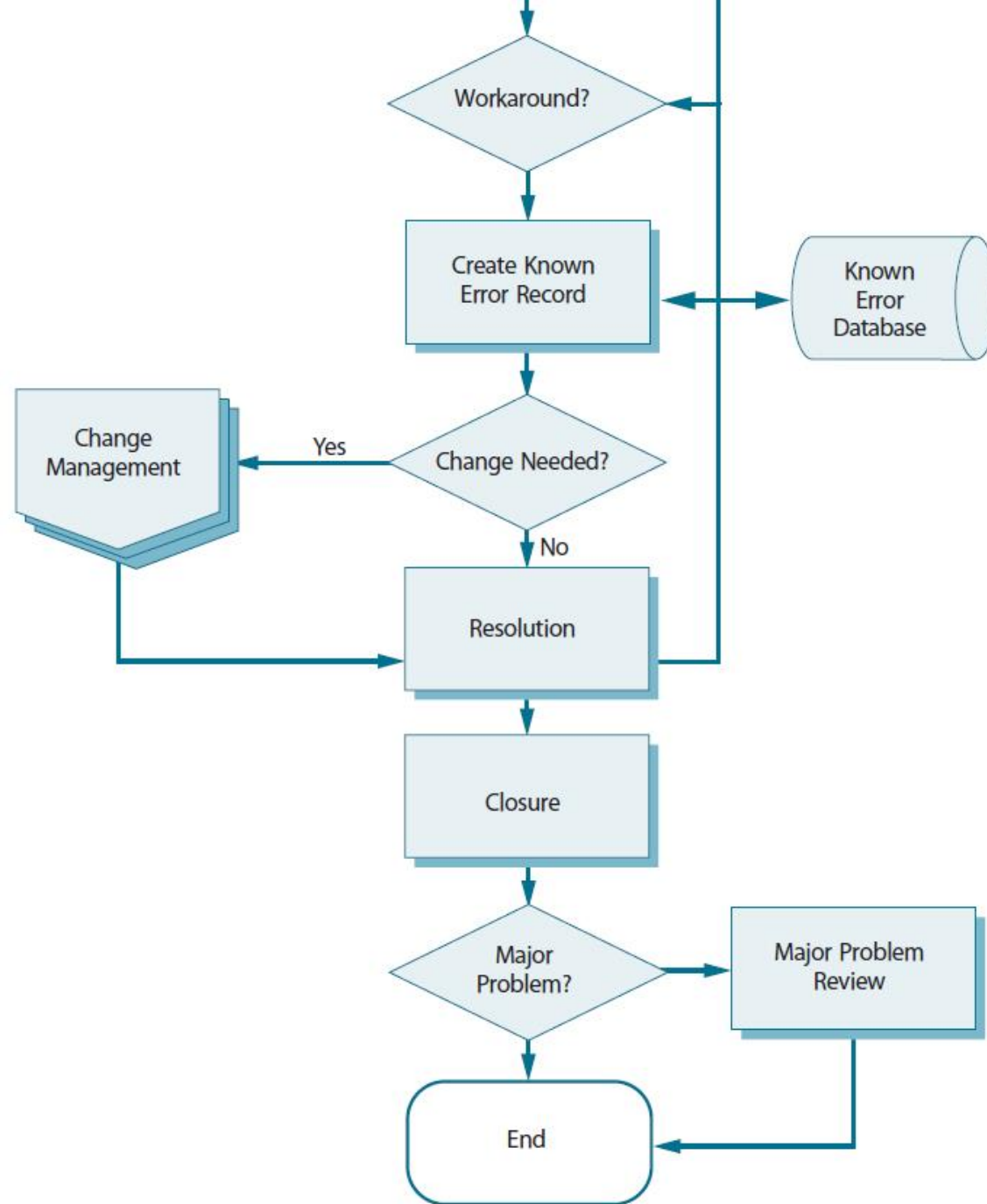
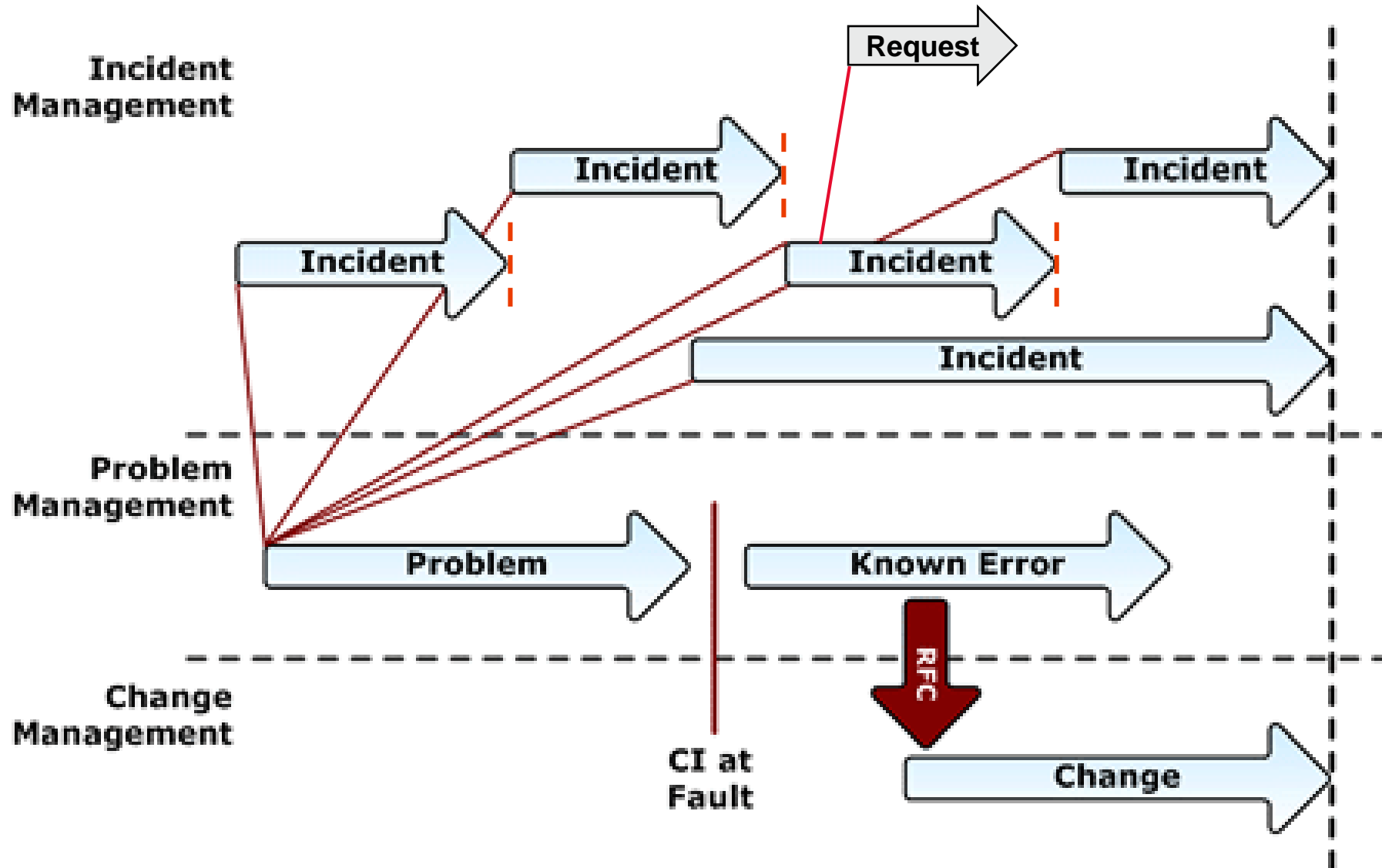


Figure 4.4 Problem Management process flow

Incident / Problem / Change



Metrics

The percentage of problems resolved within SLA targets (and the percentage that are not!)

The number and percentage of problems that exceeded their target resolution times

The backlog of outstanding problems and the trend (static, reducing or increasing?)

The number of Known Errors added to the KEDB

Critical Success Factors

Linking Incident and Problem Management tools

The ability to relate Incident and Problem Records

The second- and third-line staff should have a good working relationship with staff on the first line

Making sure that business impact is well understood by all staff working on problem resolution.



Access Management

ITIL: Service Operation

Access Management

Access Management is the process of granting authorized users the right to use a service, while preventing access to non-authorized users.

Access management implements the policies of Information Security Management.

It has also been referred to as Rights Management or Identity Management in different organizations.

Basic concepts

Access refers to the level and extent of a service's functionality or data that a user is entitled to use.

Identity of a user is unique to that user.

Rights refer to the actual settings whereby a user is provided access to a service or group of services.

Services or service groups - Most users do not use only one service, and users performing a similar set of activities will use a similar set of services.

Directory Services refers to a specific type of tool that is used to manage access and rights.

Process / Triggers

RFC - This is most frequently used for large-scale service introductions or upgrades where the rights of a significant number of users need to be updated as part of the project.

Service Request - This is usually initiated through the Service Desk, or directly into the Request Fulfilment.

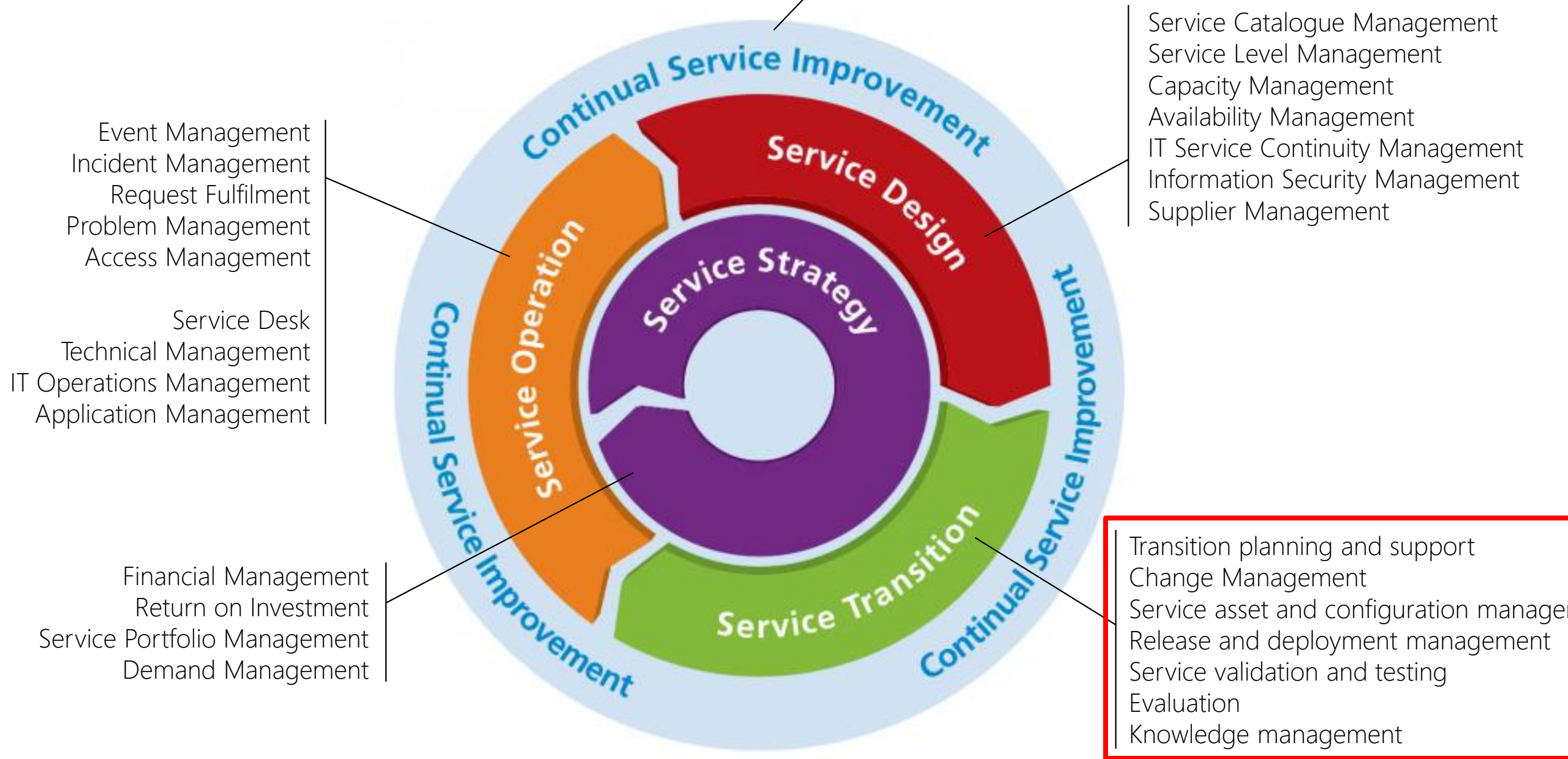
Request from manager of a department or appropriate Human Resources Management personnel.



Service Transition

ITIL Core

7-Step Improvement Process



Objective of Service Transition

To plan and manage the capacity and resource requirements to manage a release

To ensure that a service can be operated, managed and supported

To provide quality knowledge and information about services and service assets

Provide efficient repeatable build and installation mechanisms that can be used to deploy releases

Transition planning and support

Prioritizing conflicts for service transition resources

Coordinating the efforts required to manage multiple simultaneous transitions

Maintaining policies, standards and models for service transition activities and processes



Change Management

ITIL: Service Transition

Change = Service change

The addition, modification or removal of authorized, planned or supported service or service component and its associated documentation.

No change is without risk

Simple changes may seem innocuous but can cause damage out of all apparent proportion to their complexity.

There have been several examples in recent years of high profile and expensive business impact caused by the inclusion, exclusion or misplacing of a "." in software code.

Change Management Process

Standardized methods and procedures are used for efficient and prompt handling of all changes

All changes to service assets and configuration items (CI) are recorded in the Configuration Management

Overall business risk is optimized.

Policies support Change Management

Creating a culture of Change Management across the organization where there is zero tolerance for unauthorized change

Aligning the service Change Management process with business, project and stakeholder Change Management processes

Standard changes (pre-authorized)

There is a defined trigger to initiate the RFC

The tasks are well known, documented and proven

Authority is effectively given in advance

Budgetary approval will typically be preordained or within the control of the change requester

The risk is usually low and always well understood.

Remediation plan

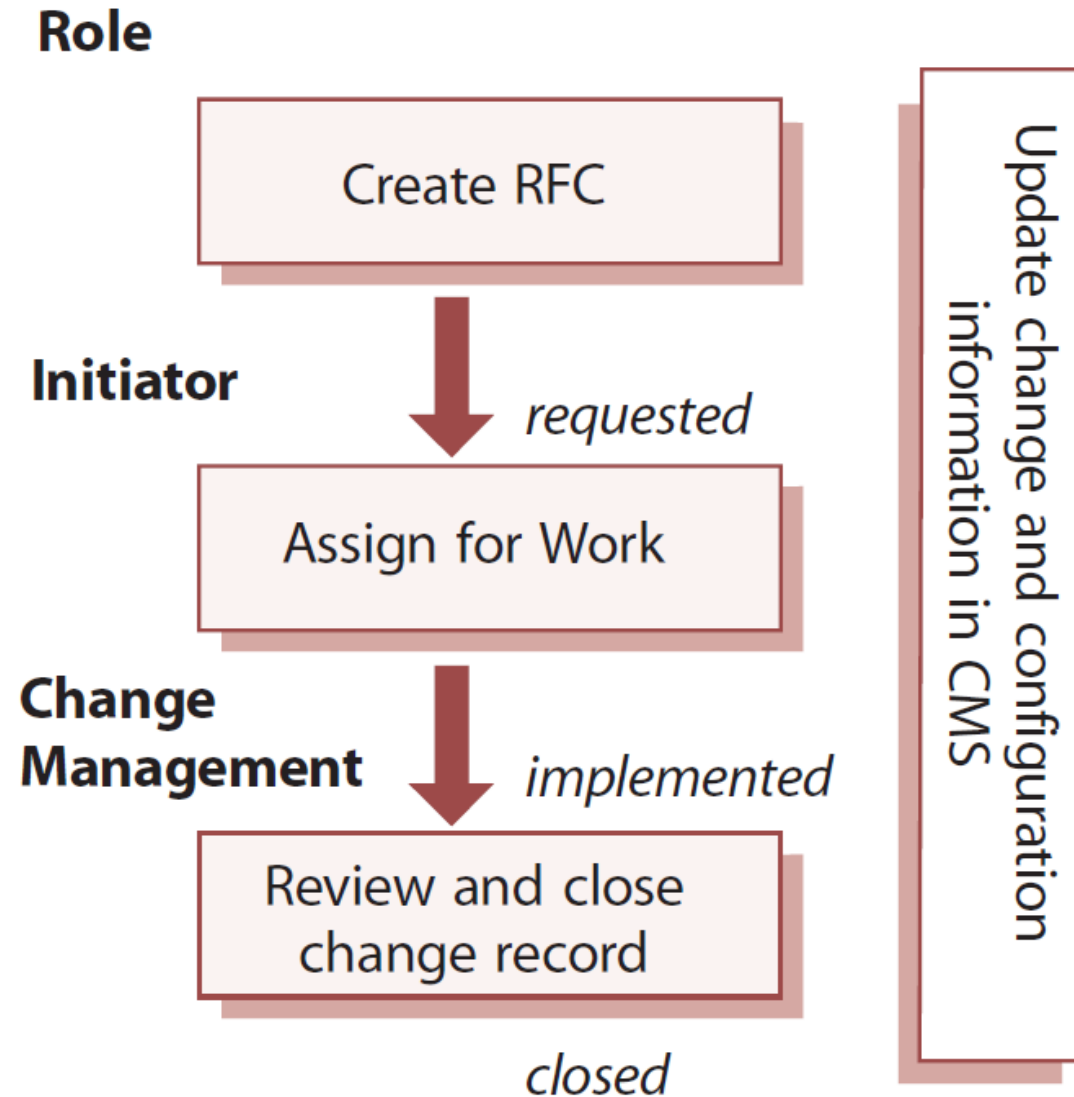
No change should be approved without having explicitly addressed the question of what to do if it is not successful.

Ideally, there will be a back-out plan, which will restore the organization to its initial situation, often through the reloading of a baselined set of CIs, especially software and data.

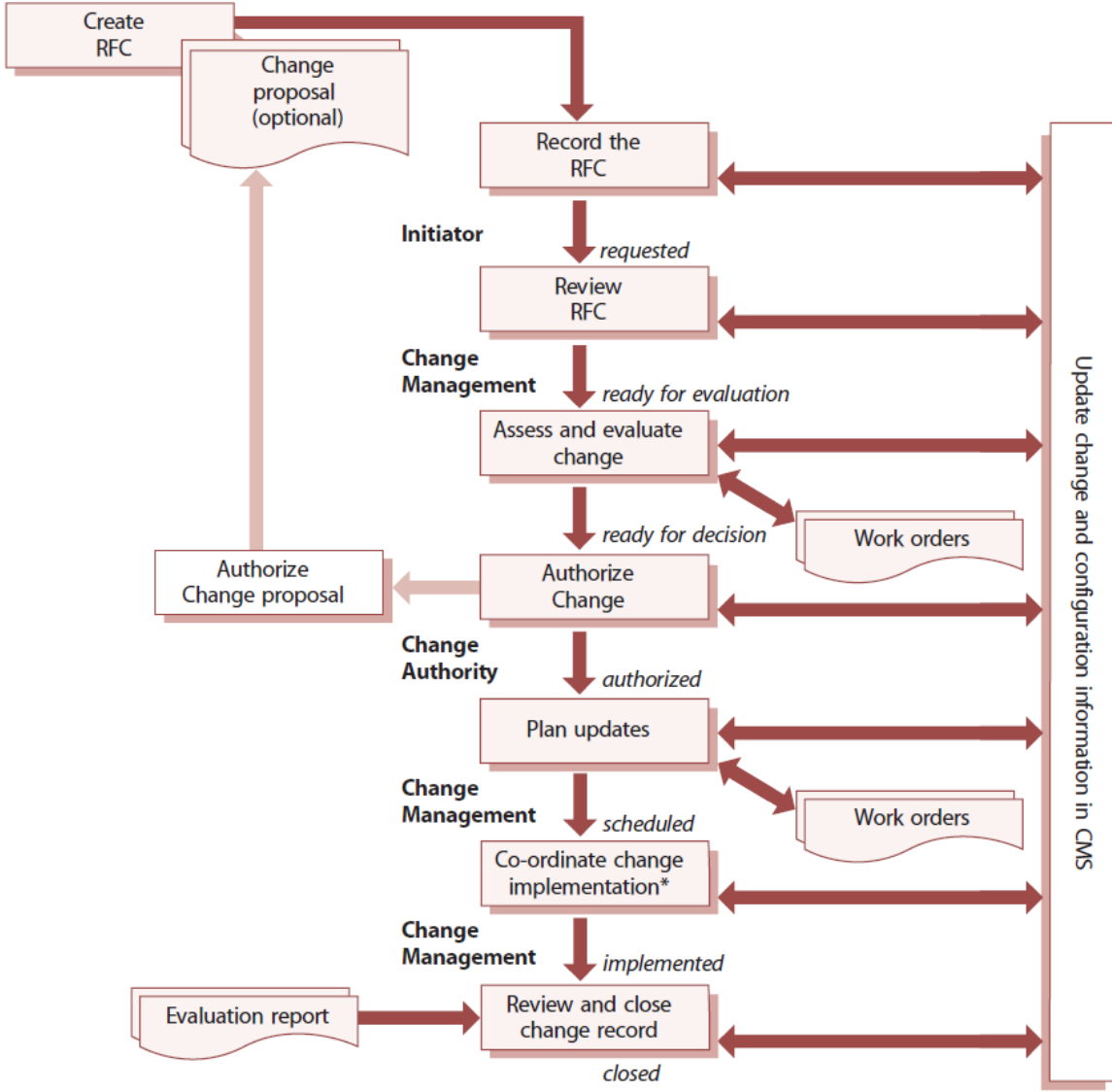
Change proposal

For a major change with significant organizational and/or financial implications, a change proposal may be required, which will contain a full description of the change together with a business and financial justification for the proposed change. The change proposal will include signoff by appropriate levels of business management.

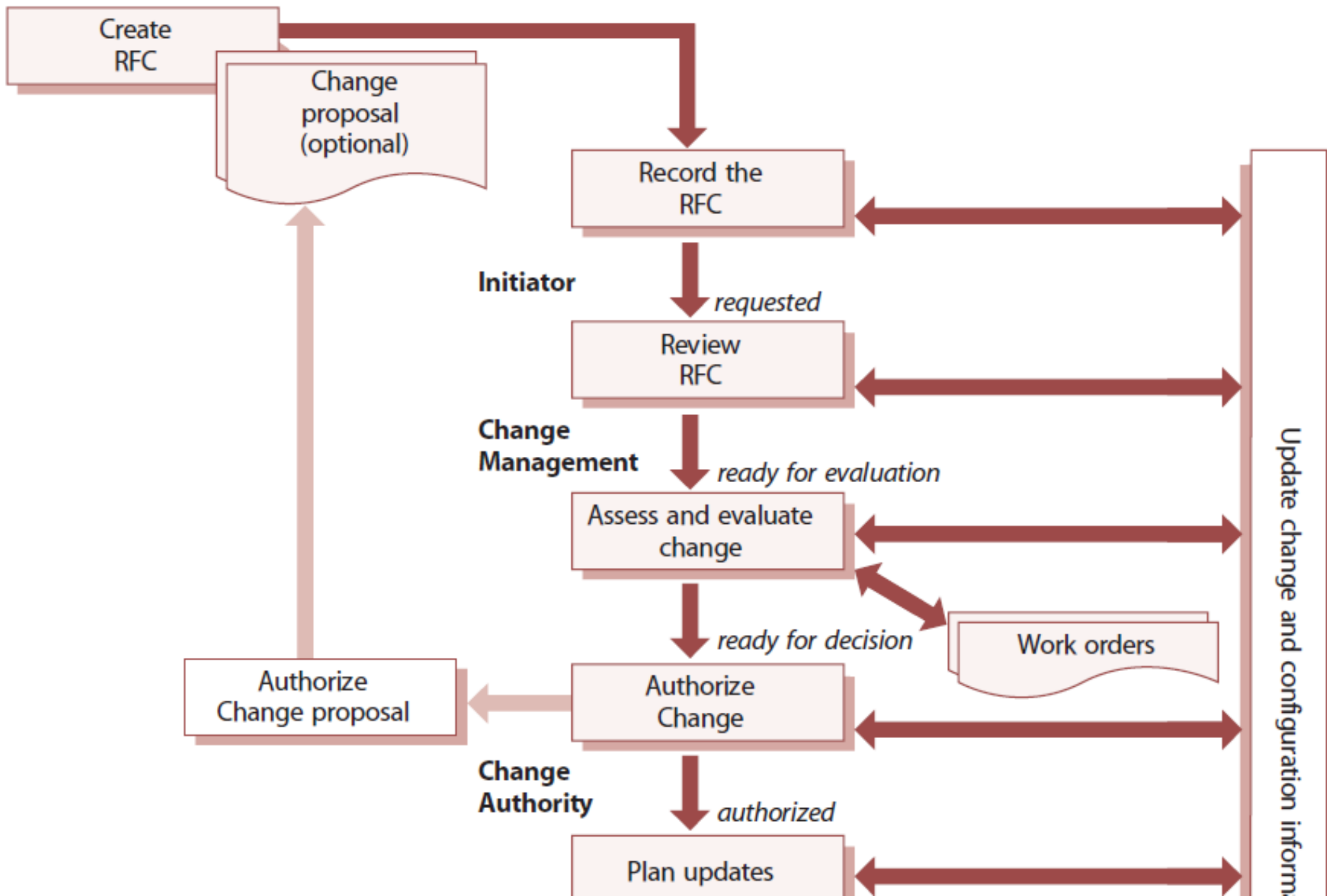
Process: Standard Operational Change

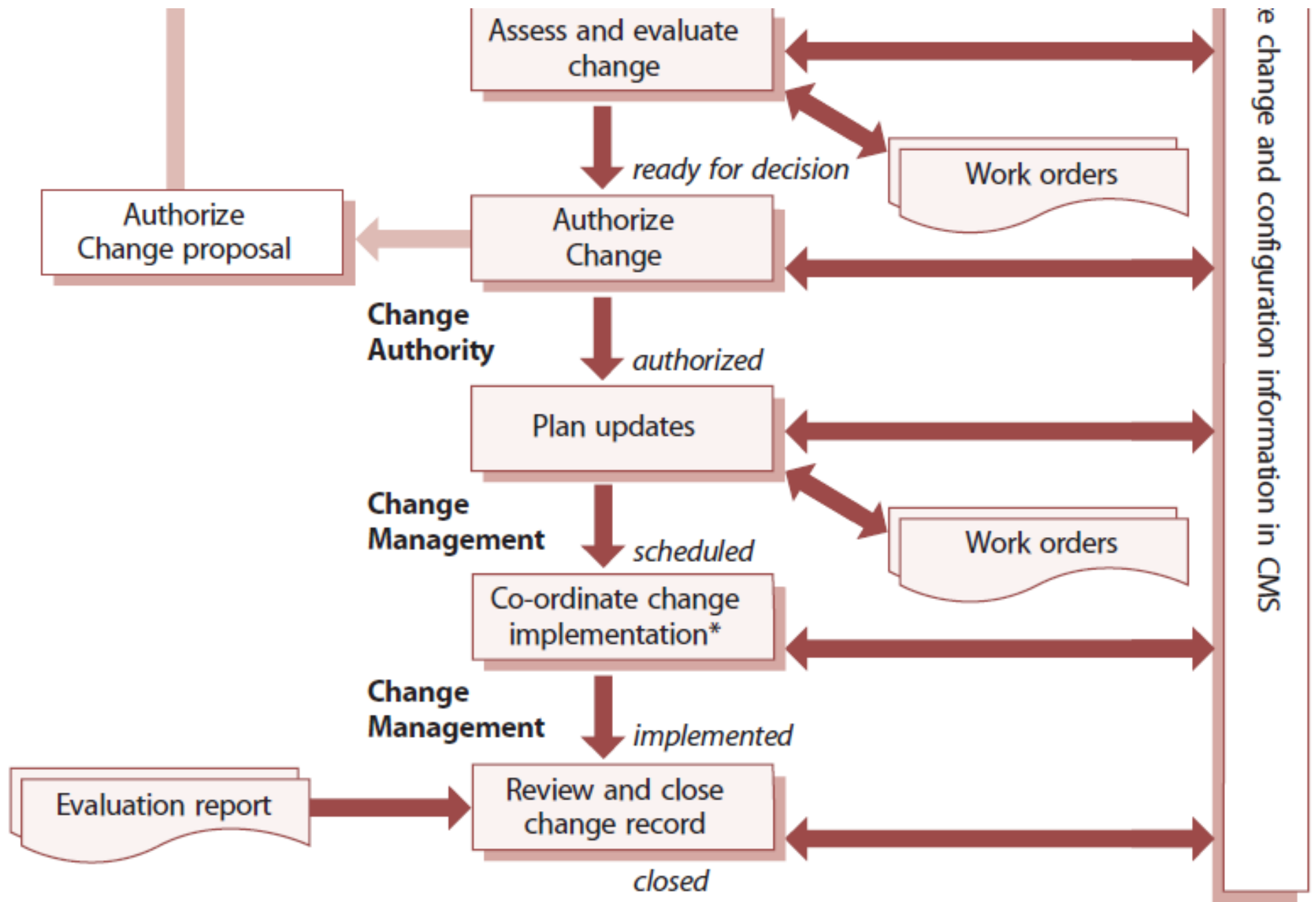


Process: Normal Change



*Includes build and test the change

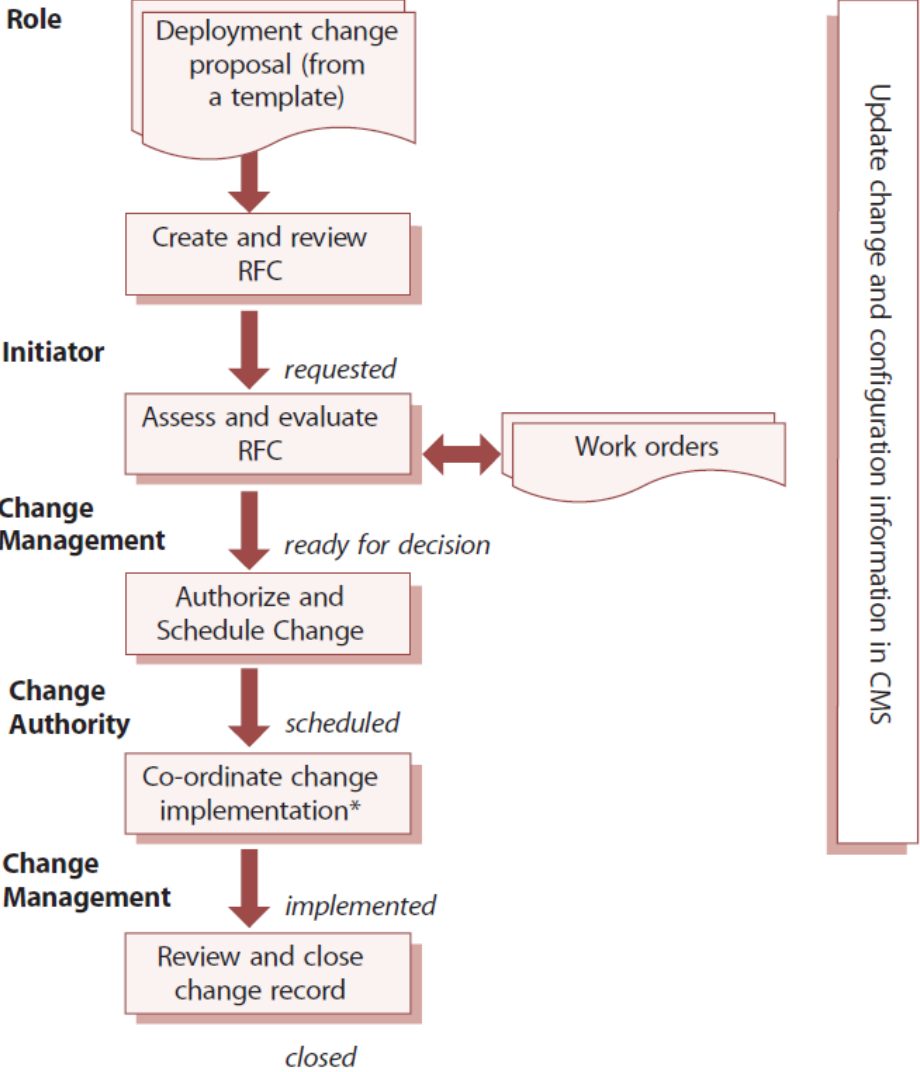




*Includes build and test the change

Process: Standard Deployment Request

Standard Deployment request
(where the deployment process is tried and tested)



*Includes build and test the change

Change Advisory Board - CAB

The Change Advisory Board (CAB) is a body that exists to support the authorization of changes and to assist Change Management in the assessment and prioritization of changes.

As and when a CAB is convened, members should be chosen who are capable of ensuring that all changes within the scope of the CAB are adequately assessed from both a business and a technical viewpoint.

CAB members e.g.

Customer(s)

User manager(s)

User group representative(s)

Applications developers/maintainers

Specialists/technical consultants

Services and operations staff

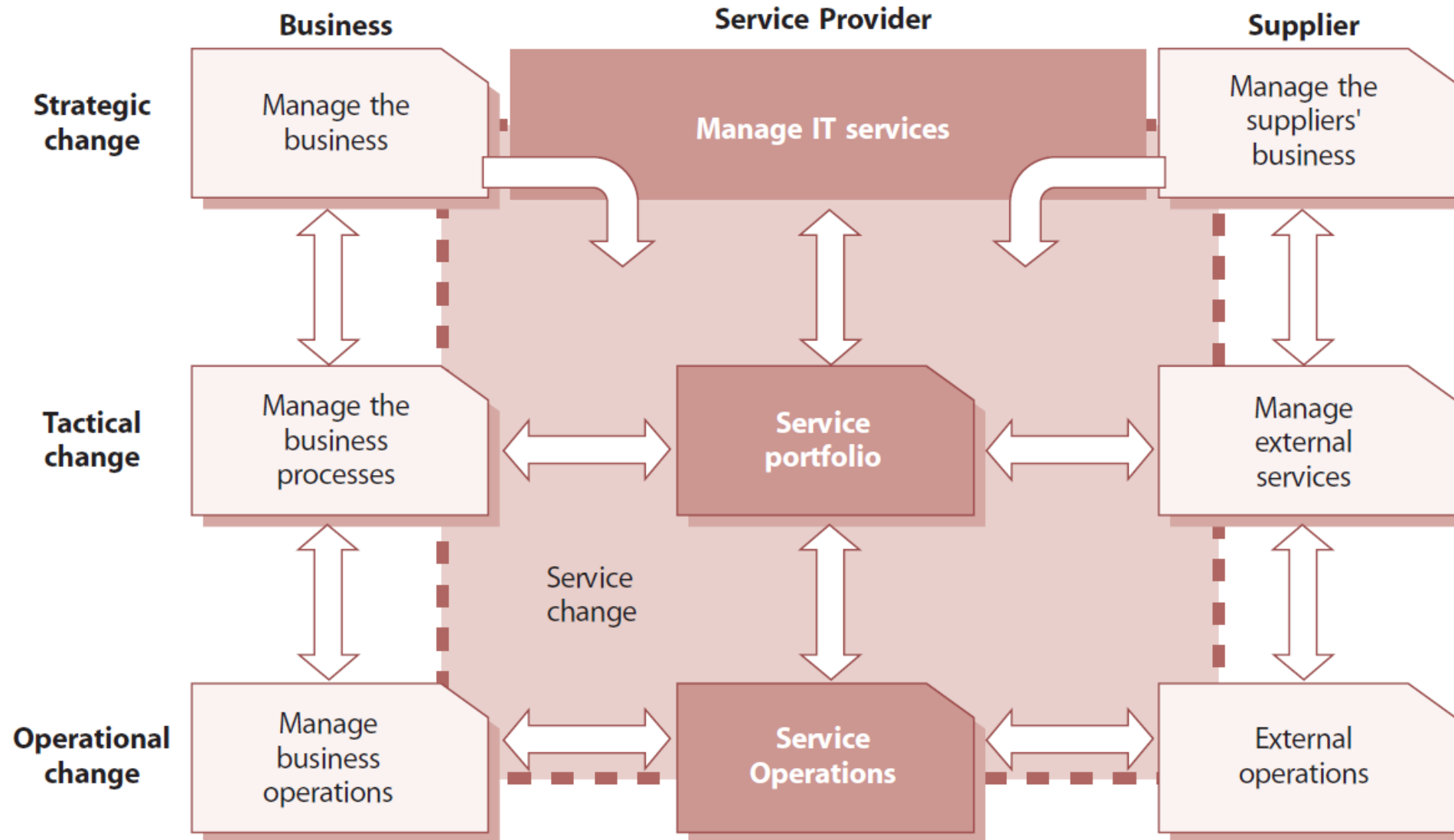
CAB vs. ECAB

Emergency Change Advisory Board (ECAB)

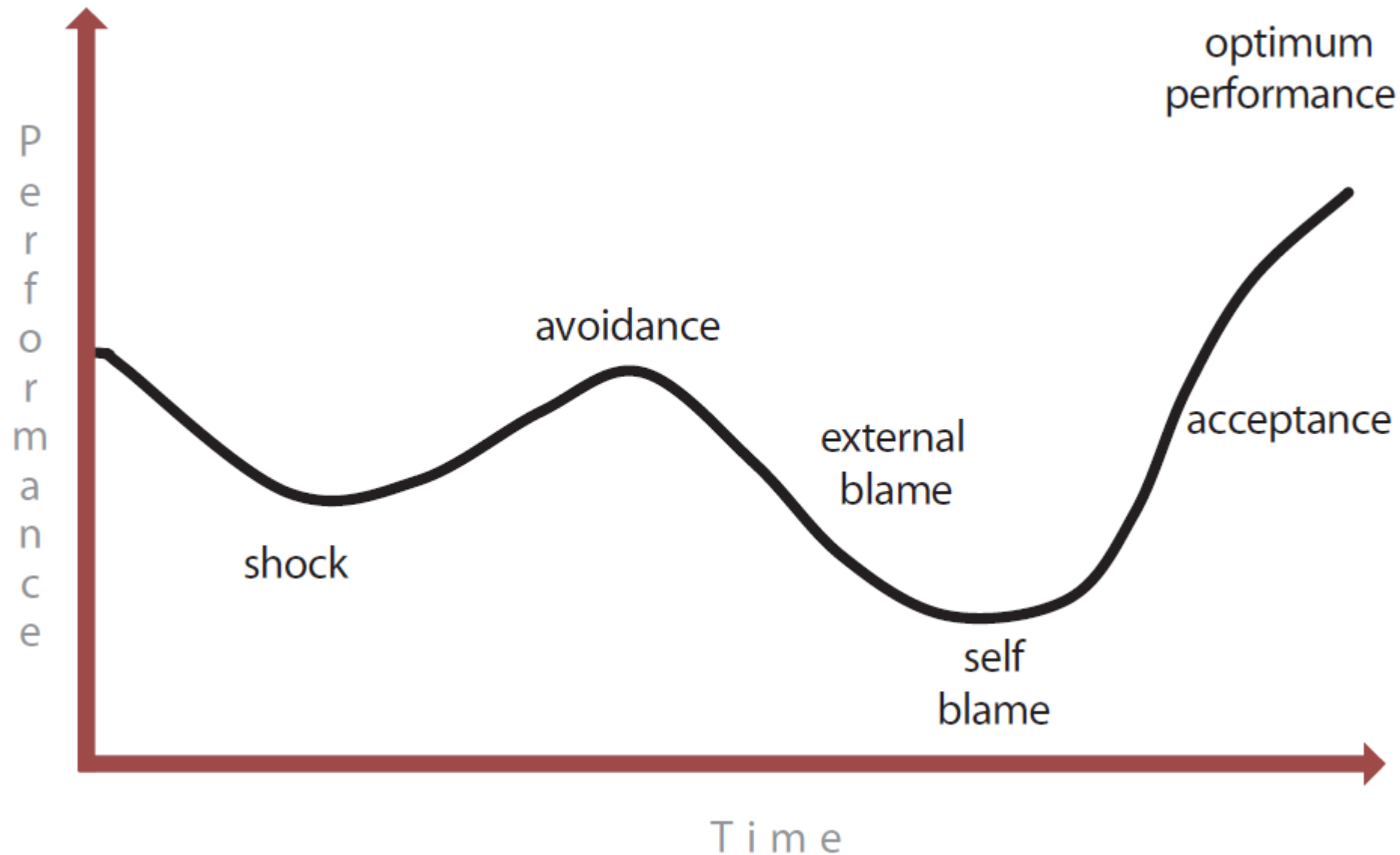
Group that should review changes that must be implemented faster than the normal change process.

The ECAB will be used for emergency changes where there may not be time to call a full CAB.

Scope of change and release



The emotional cycle of Change



Indicators of poor Change Management

Unauthorized changes (above zero is unacceptable)

Unplanned outages

A low change success rate

A high number of emergency changes

Delayed project implementations.

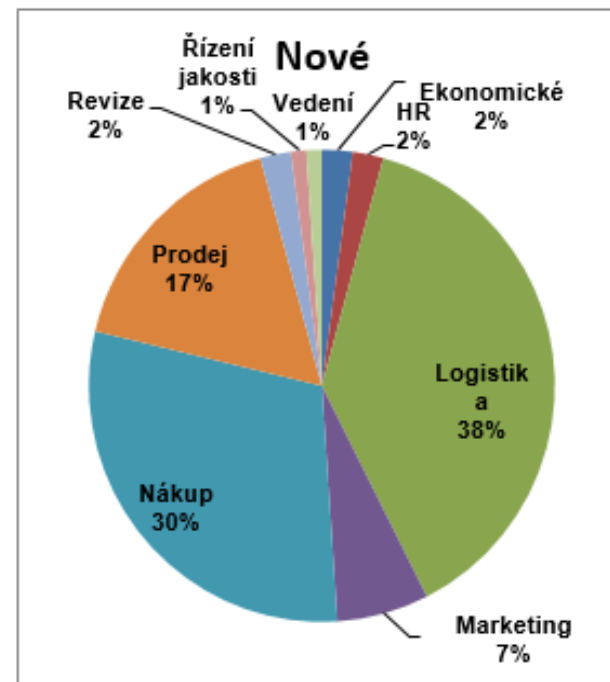
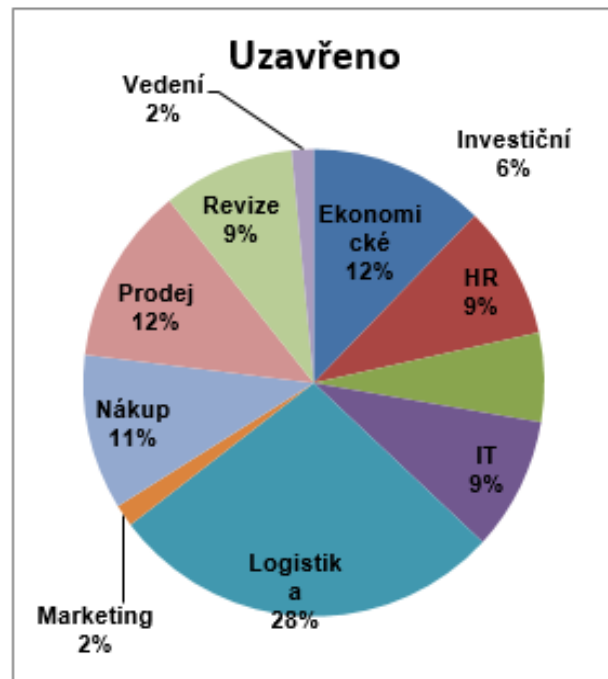
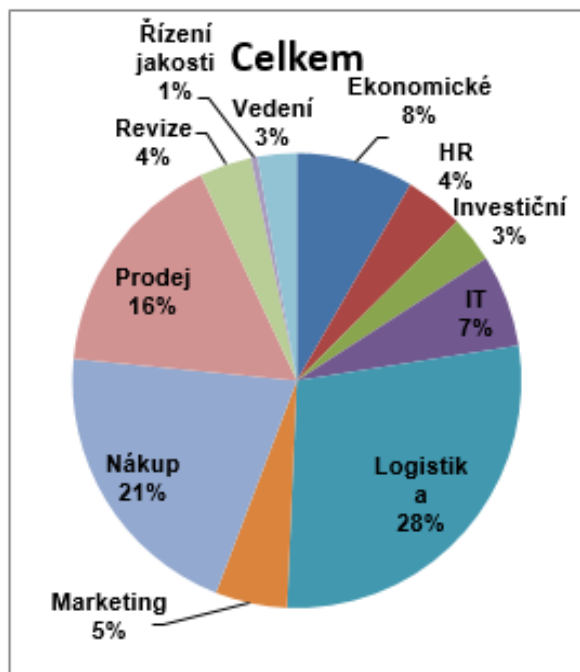
Metrics

The number of changes implemented to services which met the customer's agreed requirements, e.g. quality/cost/time

The benefits of change expressed as 'value of improvements made' + 'negative impacts prevented or terminated'

Reduction in the number and percentage of unplanned changes and emergency fixes

Open changes - status

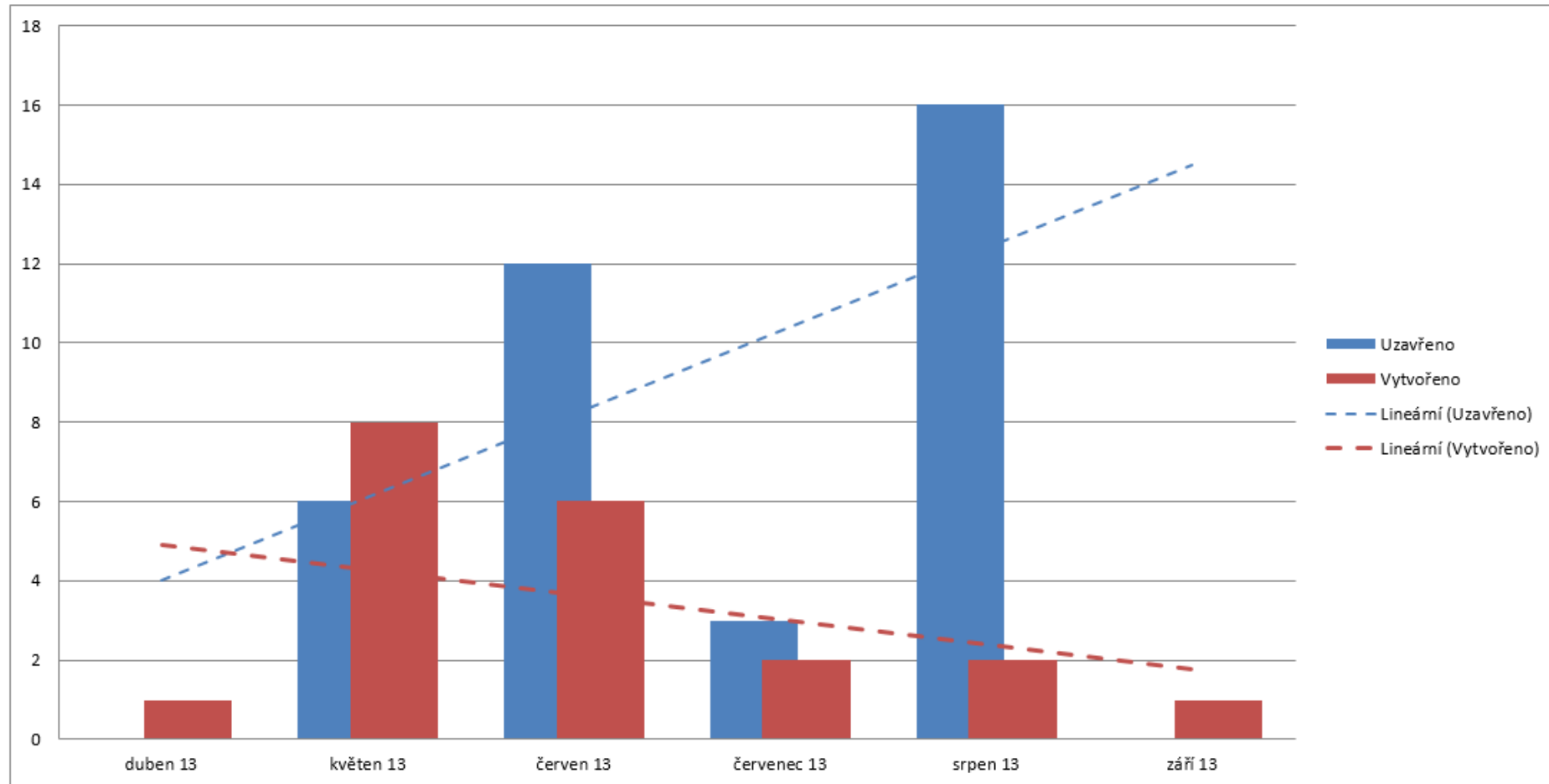


Služba(SKupina) Change Management	
Stav Uzavřeno	
Počet	Číslo a název požadavku
18	Ekonomické
9	HR
7	Investiční
14	IT
60	Logistika
11	Marketing
44	Nákup
35	Prodej
8	Revize
1	Řízení jakosti
6	Vedení
213	Celkový součet

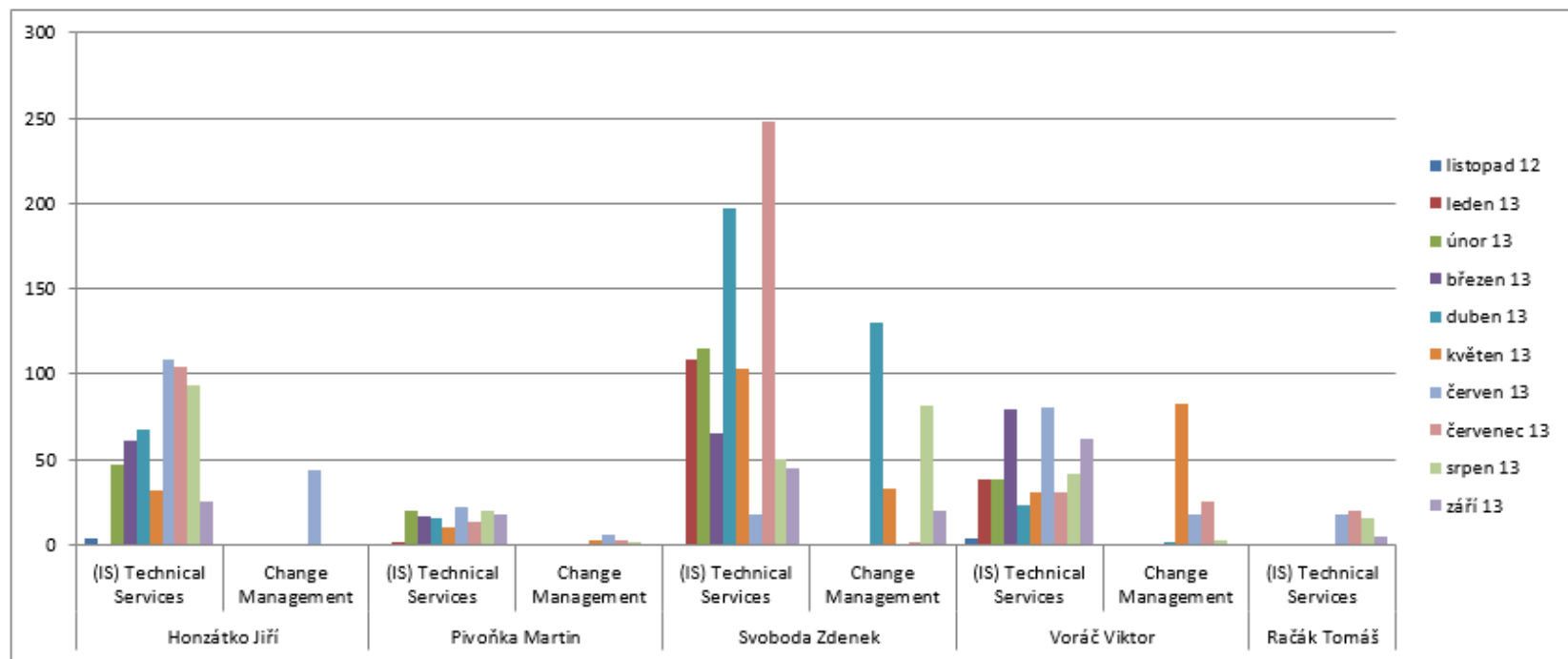
Služba(SKupina) Change Management	
Stav Nový	
Počet	Číslo a název požadavku
8	Ekonomické
6	HR
4	Investiční
6	IT
18	Logistika
1	Marketing
7	Nákup
8	Prodej
6	Revize
1	Vedení
65	Celkový součet

Služba(SKupina) Change Management	
Stav Celkový součet	
Počet	Číslo a název požadavku
2	Ekonomické
2	HR
36	Logistika
6	Marketing
28	Nákup
16	Prodej
2	Revize
1	Řízení jakosti
1	Vedení
94	Celkový součet

Changes – open / close



Change - Time sheet



Součet z Čas celkem (hodiny) Popisky sloupců		listopad 12	leden 13	únor 13	březen 13	duben 13	#####	červen 13	červenec 13	#####	září 13	Celkový součet
Popisky řádků												
<input type="checkbox"/> Honzátko Jiří		3		47	61	67	32	153	104	94	25	585
	(IS) Technical Services	3		47	61	67	32	109	104	94	25	541
	Change Management							44				44
<input type="checkbox"/> Pivoňka Martin			0	19	17	16	12	28	16	22	17	147
	(IS) Technical Services		0	19	17	16	10	22	13	20	17	134
	Change Management						3	6	3	2		13
<input type="checkbox"/> Svoboda Zdenek			108	115	65	327	136	18	249	131	65	1 214
	(IS) Technical Services		108	115	65	197	103	18	248	50	45	948
	Change Management					130	33	1	82	20		266
<input type="checkbox"/> Voráč Viktor		4	39	38	80	24	113	98	56	43	62	557
	(IS) Technical Services	4	39	38	80	24	31	80	31	41	62	429
	Change Management					1	82	18	25	2		128
<input type="checkbox"/> Račák Tomáš								17	20	16	5	59
	(IS) Technical Services							17	20	16	5	59
Celkový součet		7	147	220	222	434	293	314	445	306	174	2 561

Dva ITIL kamarádi

Jeden: Co je s tebou? Vypadáš nějak bledě?

Druhý: Ále, měl jsem několik incidentů s kolegyní v práci a žena z toho udělala problem, asi mě čeká change management.



Service Asset and Configuration Management (SACM)

SACM - Scope

Asset Management covers service assets across the whole service lifecycle. It provides a complete inventory of assets and who is responsible for their control. It includes:

- Full lifecycle management of IT and service assets, from the point of acquisition through to disposal
- Maintenance of the asset inventory.

Configuration items - CI

A configuration item (CI) is an asset, service component or other item that is, or will be, under the control of Configuration Management. Configuration items may vary widely in complexity, size and type, ranging from an entire service or system including all hardware, software, documentation and support staff to a single software module or a minor hardware component. Configuration items may be grouped and managed together, e.g. a set of components may be grouped into a release.

Categories - Service CIs

Service capability assets: management, organization, processes, knowledge, people

Service resource assets: financial capital, systems, applications, information, data, infrastructure and facilities, financial capital, people

Service model, Service package, Release package, Service acceptance criteria.

Other Categories - CIs

Organization CIs

Service lifecycle CIs

Internal CIs

External CIs

Interface CIs

Configuration Management System

To manage large and complex IT services and infrastructures, Service Asset and Configuration Management requires the use of a supporting system known as the Configuration Management System (CMS).

Configuration Management System

The CMS holds all the information for CIs within the designated scope. Some of these items will have related specifications or files that contain the contents of the item, e.g. software, document or photograph. For example, a Service CI will include the details such as supplier, cost, purchase date and renewal date for licences and maintenance contracts and the related documentation such as SLAs and underpinning contracts.

Relationships

Relationships describe how the configuration items work together to deliver the services. These relationships are held in the CMS – this is the major difference between what is recorded in a CMS and what is held in an asset register.

Relationships - dependency

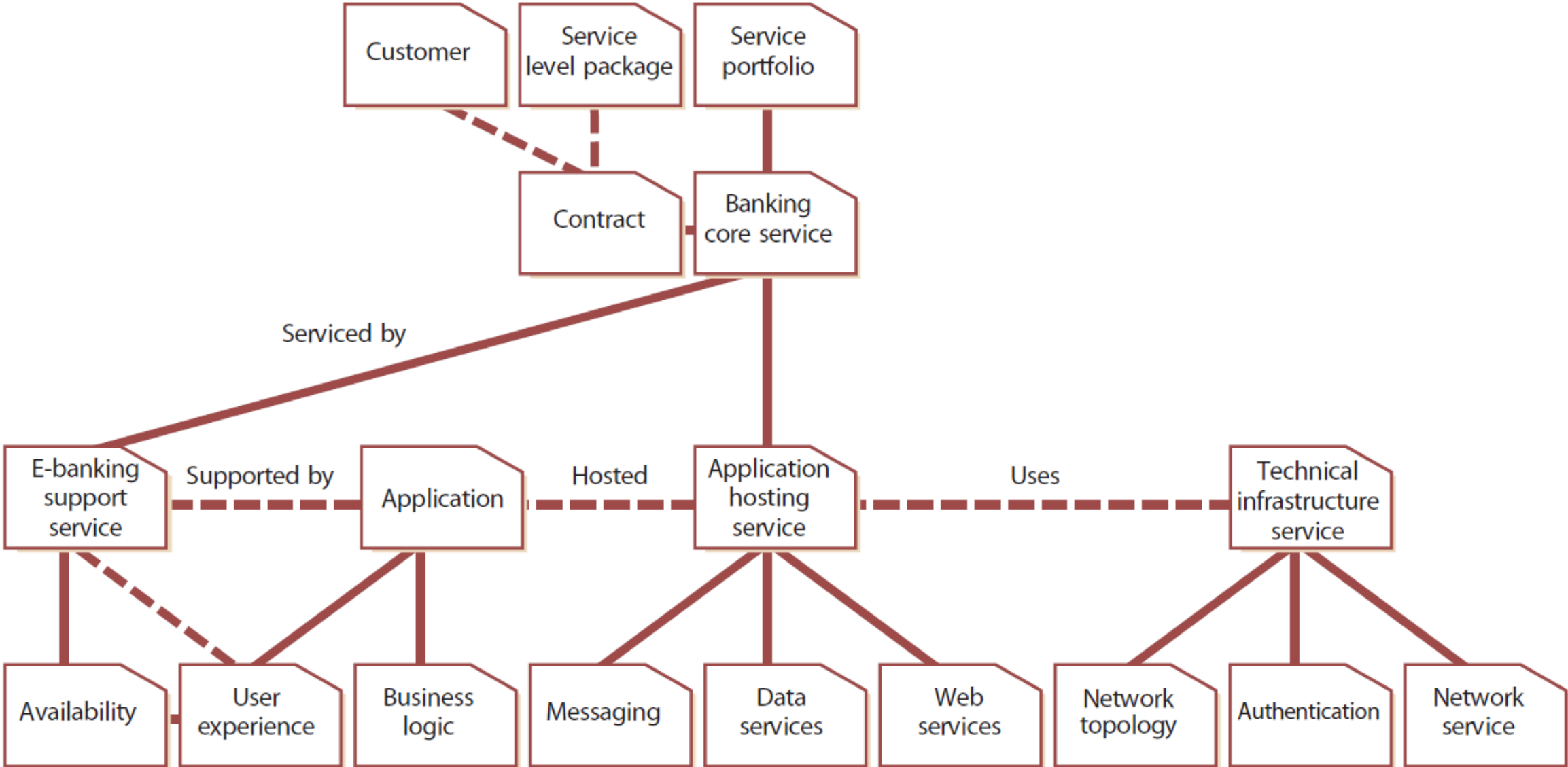
CI is a **part** of another CI, e.g. a software module is part of a program; a server is part of a site infrastructure – this is a ‘parent–child’ relationship.

CI is **connected to** another CI, e.g. a desktop computer is connected to a LAN.

CI **uses** another CI, e.g. a program uses a module from another program; a business service uses an infrastructure server.

CI is **installed** on another, e.g. MS Project is installed on a desktop PC.

Logical configuration model



Naming configuration items

Naming conventions should be established and applied to the identification of CIs, configuration documents and changes, as well as to baselines, builds, releases and assemblies.

Labelling configuration items

All physical device CIs should be labelled with the configuration identifier so that they can be easily identified.

Configuration baseline

A configuration baseline is the configuration of a service, product or infrastructure that has been formally reviewed and agreed on, that thereafter serves as the basis for further activities and that can be changed only through formal change procedures. It captures the structure, contents and details of a configuration and represents a set of configuration items that are related to each other.

Centrála společnosti

The screenshot displays the ALVAO Asset Management software interface. The window title is "ALVAO Asset Management". The menu bar includes "Soubor", "Úpravy", "Zobrazit", "Přejít", "Objekt", "Dotaz", "Software", "Nástroje", and "Nápověda". The toolbar contains various icons for navigation and actions.

The left pane shows a tree view of the organizational structure under "Penny CZ":

- ▲ Penny CZ
 - ▲ Jirny
 - ▲ Servers rooms
 - ▲ Vrátnice
 - ▲ CMS
 - ▲ Kopírovací stroje - Konika Minolta
 - ▲ Logistika
 - ▲ RBG
 - ▲ Revize
 - ▲ Řízení Jakosti
 - ▲ Penn0301
 - ▲ Lipník
 - ▲ Nýřany
 - ▲ Radonice
 - ▲ Ekonomické
 - ▲ HR
 - ▲ Investiční
 - ▲ IT
 - ▲ 81 - Test Room
 - ▲ 83 - Service Desk
 - ▲ 84 - Sklad 1
 - ▲ B2 - Infrastruktura
 - ▲ B3 - Informační systémy
 - ▲ B41 - Sklad 2
 - ▲ B5 - Vedoucí oddělení
 - ▲ Kopírovací stroje_ Konika Minolta
 - ▲ Logistika
 - ▲ Marketing
 - ▲ Nákup
 - ▲ Prodej
 - ▲ Řízení Jakosti
 - ▲ Vedení společnosti
 - ▲ F501033
 - ▲ F501034
 - ▲ F501035

The right pane shows the "Vlastnosti" (Properties) tab. The table below displays the properties for the selected object:

Vlastnost	Hodnota	Objekt
[-] Kód organizace	Penny	
[-] Název organizace	Penny CZ	

Below the properties table, there are tabs for "Všechno", "Vlastní", "Základní", "Technické", "Účetní", and "Umístění". The "Všechno" tab is active, showing a table of records:

I...	Datum	Druh záznamu	Druh objektu	Objekt
<input checked="" type="checkbox"/>	13.9.2012 10:12	Informace	Organizace	Penny CZ
<input checked="" type="checkbox"/>	13.8.2012 10:07	Informace	Organizace	Penny CZ

At the bottom of the window, there is a status bar with the text "Pro zobrazení nápovědy stiskněte klávesu F1." and "Objekt: Penny CZ".

Jednotlivé prodejny

The screenshot displays the ALVAO Asset Management software interface. On the left, a tree view shows a hierarchy of stores under 'Prodejny' (Stores), with 'Jihočeský' (South Bohemian) expanded to show individual store locations like '501106, Penny Market, Tábor'. The main window shows the 'Vlastnosti' (Properties) tab for the selected store, listing various attributes such as 'Cena' (Price), 'Číslo prodejny' (Store Number), 'Datum instalace' (Installation Date), and 'Výrobce' (Manufacturer). Below this, a table shows a list of transactions or events for the store, including dates, times, and descriptions of actions like 'Přesunut do' (Moved to).

Vlastnost	Hodnota	Objekt	Dědit
Cena			Ne
Číslo dodacího listu			Ne
Číslo prodejny	501106	501106, Penny Market,...	Ano
Datum instalace	3.10.2012 7:53		Ne
Datum nákupu			Ne
Dodavatel			Ne
Inventární číslo			Ne
Kontrakt	pokladny, platební terminál...		Ano
Kraj	Jihočeský	Jihočeský	Ano
Město	Tábor	501106, Penny Market,...	Ano
Model	Beetle M D2 board		Ne
Název organizace	Penny CZ	Penny CZ	Ano
Pobočka	Penny Market	501106, Penny Market,...	Ano
Poznámka			Ne
Produktové číslo	inv		Ne
Sériové číslo	64276U2630		Ne
Stav zařízení	V provozu		Ne
Výrobce	Wincor		Ne
Záruka do			Ne

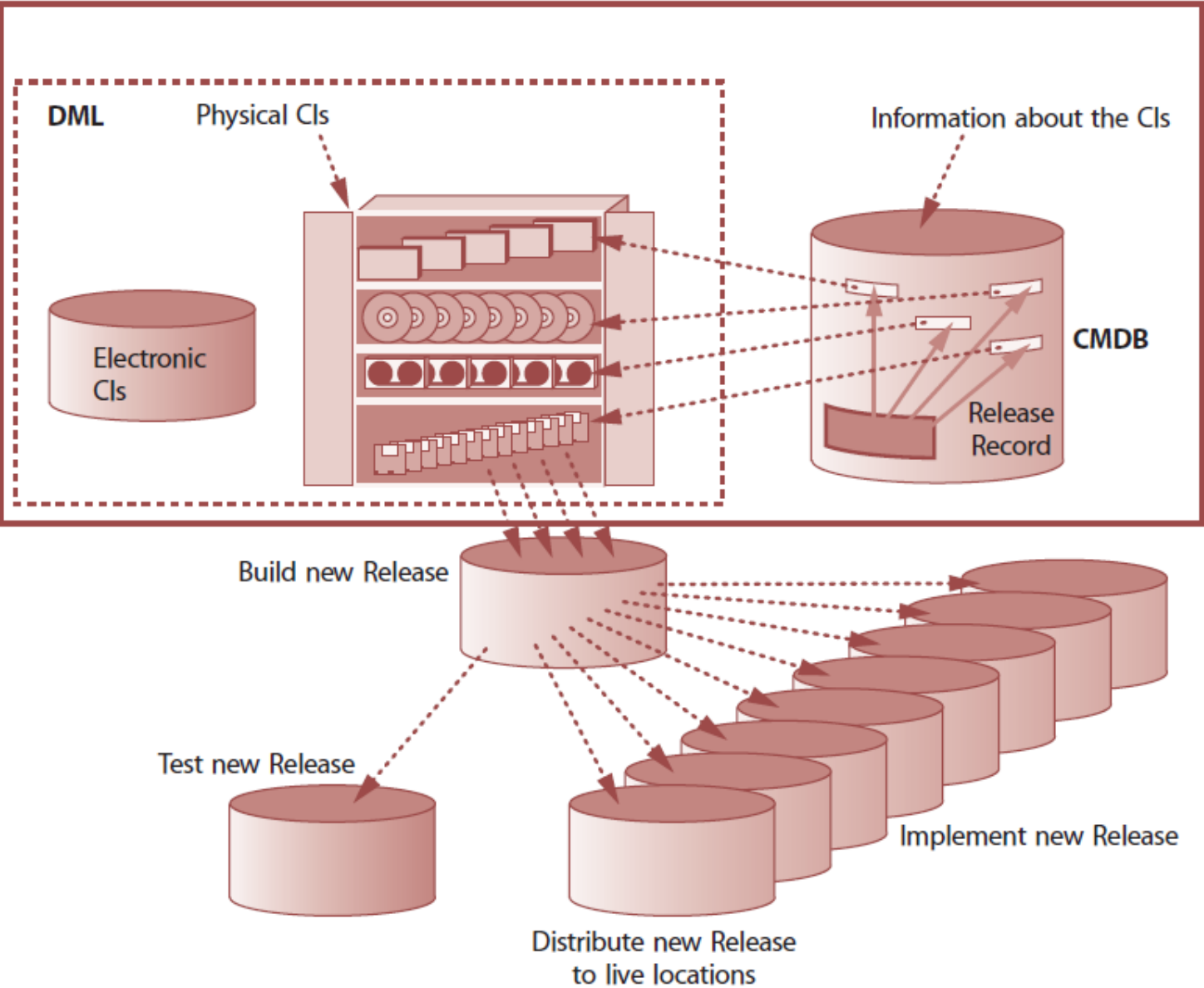
I...	Datum	Druh záznamu	Druh objektu	Objekt	Nadpis	Zpráva
<input checked="" type="checkbox"/>	11.4.2013 19:39	Informace	POS Pokladna	Wincor, ...		
<input checked="" type="checkbox"/>	11.4.2013 19:39	Informace	POS Pokladna	Wincor, ...		
<input checked="" type="checkbox"/>	11.4.2013 19:39	Informace	POS Pokladna	Wincor, ...		
<input checked="" type="checkbox"/>	11.4.2013 19:39	Informace	POS Pokladna	Wincor, ...		
<input checked="" type="checkbox"/>	11.4.2013 19:39	Informace	POS Pokladna	Wincor, ...		
<input checked="" type="checkbox"/>	11.4.2013 19:39	Informace	POS Pokladna	Wincor, ...		Vlastnost "Model" byla zm
<input checked="" type="checkbox"/>	11.4.2013 19:39	Informace	POS Pokladna	Wincor, ...		
<input checked="" type="checkbox"/>	11.4.2013 19:39	Informace	POS Pokladna	Wincor, ...		
<input checked="" type="checkbox"/>	11.4.2013 17:58	Informace	POS Pokladna	Wincor, ...		Vlastnost "temp" byla odst
<input checked="" type="checkbox"/>	11.4.2013 17:54	Historie objek...	POS Pokladna	Wincor, ...	Přesunut do	/Penny CZ/Prodejny/Jihoč
<input checked="" type="checkbox"/>	11.4.2013 17:51	Historie objek...	POS Pokladna	Wincor, ...	Přesunut do	/Nařtené objekty/nos

Pro zobrazení nápovědy stiskněte klávesu F1. Objekt: Penny CZ\Prodejny\Jihočeský\501106, Penny Market, Tábor\Wincor, Beetle M D2 board

Definitive Media Library - DML

The Definitive Media Library (DML) is the secure library in which the definitive authorized versions of all media CIs are stored and protected. It stores master copies of versions that have passed quality assurance checks. This library may in reality consist of one or more software libraries or file-storage areas, separate from development, test or live file-store areas. It contains the master copies of all controlled software in an organization.

DML and CMDB



Verification and audit

Ensure there is conformity between the documented baselines (e.g. agreements, interface control documents) and the actual business environment to which they refer

Verify the physical existence of CIs in the organization or in the DML.

Check that release and configuration documentation is present before making a release.

Challenges & Critical success factors

Persuading technical support staff to adopt a checking in/out policy

An attitude of 'just collecting data because it is possible to do'; this leads SACM into a data overload

Focusing on establishing valid justification for collecting and maintaining data at the agreed level of detail



Evidence majetku

Správa hardware

Popis problematiky evidence majetku

„Firma“ (majitel) nechce, aby se mu ztrácely věci

„Finance“ potřebují správně alokovat náklady (odpisy)
a znát hodnotu majetku

„IT“ potřebuje mít přehled o zařízeních (záruka do,
RAM, HDD atd.)

Záměr: pragmatické řešení

Mít maximální přehled nad majetkem společnosti a přitom zjednodušit administrativní činnosti.

Zajistit aktuálnost informací

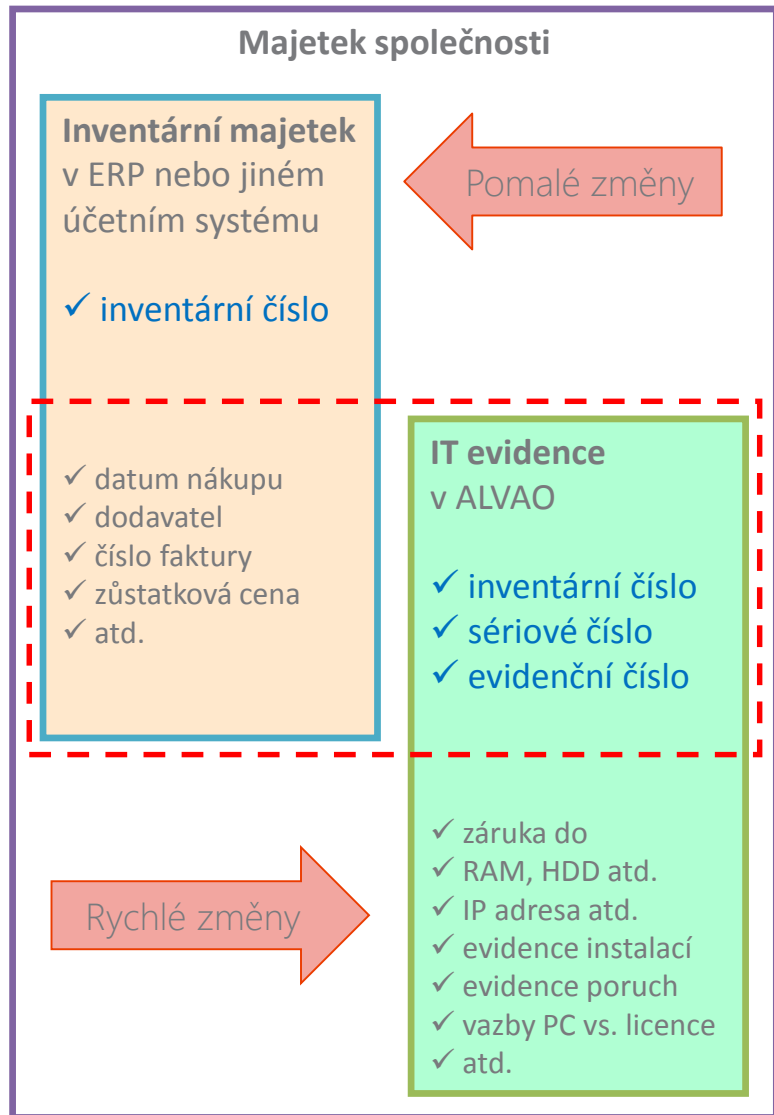
- Evidují ti co se o věci starají
- Evidence probíhá okamžitě a je přesnější

Minimalizovat nutnost ručního zadávání dat

- Znat historii změn (automaticky)

Dobré podklady pro plánování obnovy HW a SW

Evidence majetku společnosti



Inventární majetek

- ✓ Např. skříně, stoly, stroje, nářadí a další zařízení...

Inventární majetek / Operativní evidence

- ✓ Počítače, notebooky, tiskárny, aktivní prvky...
- ✓ Často má jedno inventární číslo několik částí...
- ✓ PC bylo součástí většího technologického celku
- ✓ PC se nakoupilo s monitorem, brašnou, dokovací stanicí apod.
- ✓ Také některé SW licence se evidují pod jedním inventárním číslem
- ✓ OEM licence jsou součástí PC (hmotného majetku)

Drobný majetek do spotřeby / V pronájmu / Operativní evidence

- ✓ Mobilní telefony, stolní telefony
- ✓ SIM karty
- ✓ Počítače a další zařízení v pronájmu
- ✓ Čipové karty, tokeny, klíče apod.

Naprostou většinu informací zjistí ALVAO automaticky pomocí detekcí po síti.

Proces nákupu HW / SW licence

1. Zapsání HW + OEM SW do IT evidence (v den dodání)
2. Přidělení dalších SW licencí na HW a uživatele
3. Instalace a konfigurace (PC, NTB, telefon atd.)
4. Přichází faktura (několik dní i týdnů po dodání)
5. Zaevidování majetku v ERP (několik dní i týdnů po dodání)
6. Notifikace mailem o novém IT majetku (v ERP)
7. Tisk štítků a polepení
8. Předání uživateli (předávací protokol z ERP)

Předávací protokol - souhrnný

Číslo:
PP3

Písemné potvrzení svěřeného ICT majetku

Petr Novák (Demo)

Svěřený majetek:

Druh	Název	Sériové číslo	Inventární číslo	Evidenční číslo
Mobilní telefon	NOKIA, 6500		HIM122434	
Počítač	NTB20	HPx34654-11	INV0020	
SIM karta	605123456, T-Mobile		HIM122435	
Telefon	Siemens, C100	S3654673	HIM122447	

Ve smyslu ust. §178 ZP potvrzuji, že jsem převzal(a) veškeré shora specifikované předměty, které mi zaměstnavatel svěřil k plnění pracovních úkolů.

Nástup zaměstnance

Datum: 29.9.2010

Jméno: Petr Novák (Demo)

Podpis:

Oddělení ICT:

Oddělení ICT tímto potvrzuje, že zaměstnanec nemá k výše uvedenému datu svěřeny jiné předměty, které jsou ve správě Oddělení ICT, než výše uvedené.

Jméno: Radek Grodl

Podpis:


Přínosy pro ekonomické oddělení

Snadný přístup k přesným informacím

Propojení na účetní evidenci majetku (ERP Noris)

Rychlý přehled o umístění majetku

Přehled naposledy pořízeného majetku



The screenshot displays the ALVAO Asset Management software interface. The title bar reads "ALVAO Asset Management" and the current view is "Poslední pořízený majetek". Below the title bar, there are navigation tabs: "Můj svěřený majetek", "Strom", and "Poslední pořízený majetek". A search bar is located on the right side of the navigation area. The main content is a table with the following columns: "Druh objektu", "Název objektu", "Sériové číslo", "Inventurní číslo", "Evidenční číslo", "Uživatel", "Středisko", "Místnost", "Vytvořeno", "Dodavatel", and "Dodací list - číslo". The table contains several rows of data, including mice, keyboards, and PCs. A mouse cursor is hovering over the "Evidenční číslo" column of the PC35 row.

..	Druh objektu	Název objektu	Sériové číslo	Inventurní číslo	Evidenční číslo	Uživatel	Středisko	Místnost	Vytvořeno	Dodavatel	Dodací list - číslo
	Myš	Genius mouse 130					Sklad	Sklad	14.10.2010 21:44:40		
	Klávesnice	Chicony, KU-2971					Sklad	Sklad	14.10.2010 21:44:40		
	Počítač	PC35		INV102031			Sklad	Sklad	14.10.2010 21:44:40	Dell	
	Sestava	PC35					Sklad	Sklad	14.10.2010 21:44:40		
	Myš	Genius mouse 130					02		14.10.2010 21:22:13		
	Klávesnice	Chicony, KU-2971					02		14.10.2010 21:22:13		
	Počítač	PC34	DX245-53500-200	HIM122462			02		14.10.2010 21:22:13	Dell	
	Sestava	PC34					02		14.10.2010 21:22:13		
	Myš	Genius mouse 130				Veronika Vlčdná (Demo)	051		14.10.2010 20:25:55		

Zaměstnanci vidí svěřený IT majetek

Přehled svěřeného majetku a přidělených licencí na intranetu

The screenshot displays the ALVAO Asset Management interface in a Windows Internet Explorer browser. The page title is "Můj svěřený majetek - Asset Management". The browser address bar shows the URL: `http://localhost/Asset/LoginBrowser.aspx?NodeId=794`. The user is identified as "Radek Grodl".

The main content area is titled "ALVAO Asset Management > Můj svěřený majetek". It features a navigation menu on the left and a main content area on the right. The left menu includes options like "Můj svěřený majetek" and "Strom". The main content area is divided into two tabs: "Vlastnosti" and "Software".

The "Software" tab is active, displaying a table of installed software. The table has the following columns: "Nainstalovaný software", "Typ", "Stav licence", and "Stav profilu". The table lists various software applications, including ALVAO Asset Management Agent 5, ALVAO Asset Management Collector 5, ALVAO Asset Management Console 5, ALVAO Asset Management Portal 5, ALVAO Helpdesk 2, ALVAO Monitoring Agent 1, HP Quick Launch Buttons, InterVideo WinDVD 5, Microsoft Document Explorer 2005, Microsoft Office 2007 Enterprise, Microsoft Office Access 2007, Microsoft Office Excel 2007, Microsoft Office Groove 2007, and Microsoft Office InfoPath 2007. The "Stav licence" column for all listed software is "Chybí" (Missing), and the "Stav profilu" column is "Volitelný" (Optional).

The left sidebar shows a tree view of assets for the user "Radek Grodl". The tree includes items such as "e-mailová schránka", "HP 1000", "ntb10, INY008", "2048 MB", "Base Board", "Intel(R) 82566MM Gigabit Network Connection", "Intel(R) Core(TM)2 Duo CPU U7600 @ 1.20GHz, 1201 MHz", "Intel(R) Wireless WiFi Link 4965AG", "MATSHITA DVD-RAM UJ-842S ATA Device", "Mobile Intel(R) 965 Express Chipset Family", "Removable Disk", "SD Disk Device, 55 MB", "SoundMAX Integrated Digital HD Audio", "TOSHIBA MK1011GAH ATA Device, 95394 MB", "Přístup na internet", "SAP modul CRM", and "SONY".

Proces přesunu HW / SW licence

1. Přesun majetku v evidenci (HW+SW)
2. Instalace a konfigurace (PC, NTB, telefon atd.)
3. Předání uživateli (předávací protokol)
4. Promítnutí změny v ERP (obvykle do konce zúčtovacího období)

1x Ročně souhrnné listy (inventura)

Proces vyřazení HW / SW licence

1. Pokus o uplatnění majetku jinde ve společnosti
2. Přesun majetku v evidenci (HW+SW) do složky na vyřazení
3. Uvolnění SW licencí
4. Vymazání citlivých dat z HW
5. Účetní vyřazení majetku - ERP (obvykle 1x ročně)



Release and Deployment Management

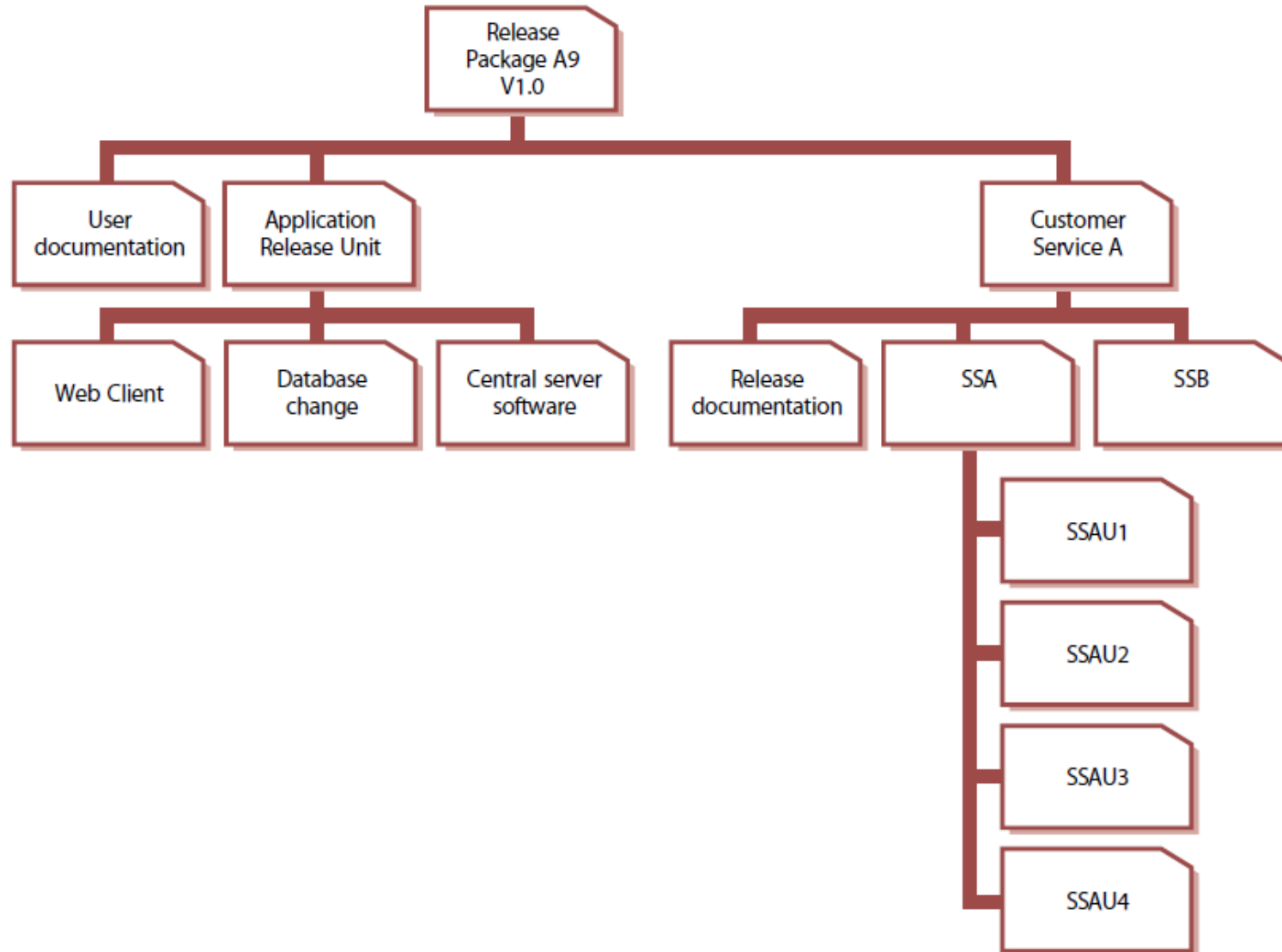
Release and Deployment Management

Release and Deployment Management aims to build, test and deliver the capability to provide the services specified by Service Design and that will accomplish the stakeholders' requirements and deliver the intended objectives.

Release unit

A 'release unit' describes the portion of a service or IT infrastructure that is normally released together according to the organization's release policy. The unit may vary, depending on the type(s) or item(s) of service asset or service component such as software and hardware.

Release Package



Deployment Considerations

Big Bang

vs.

Phased

Release deployed to all areas in one operation

Release deployed in increments according to a rollout plan

Push

vs.

Pull

Release is deployed from a central location delivering to all users

Release is made available for users to access when they need it

Automation

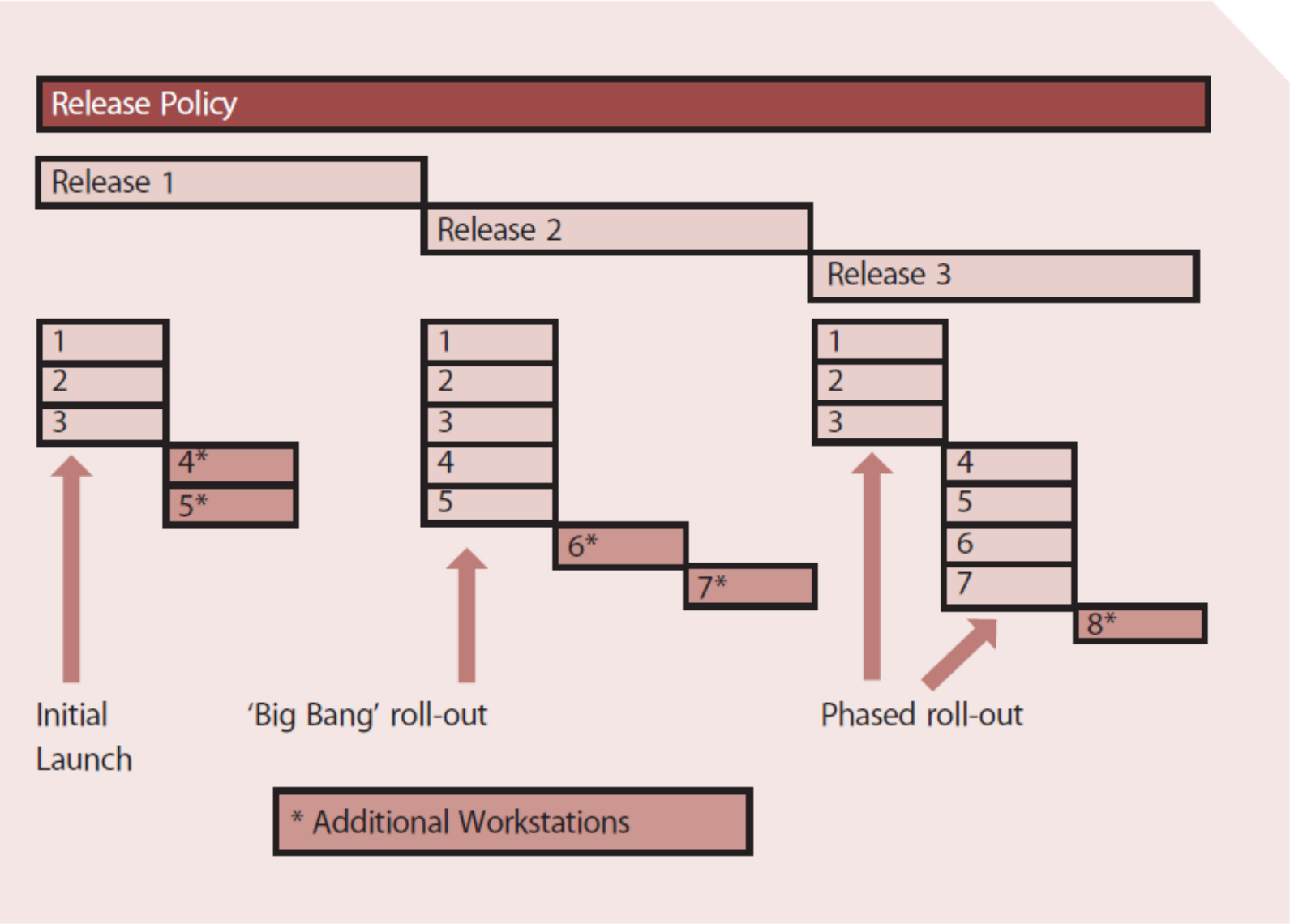
vs.

Manual

Using distribution tools to distribute the release

Installing the release by hand

Big bang and Phased rollout



Phased deployment across geographical locations

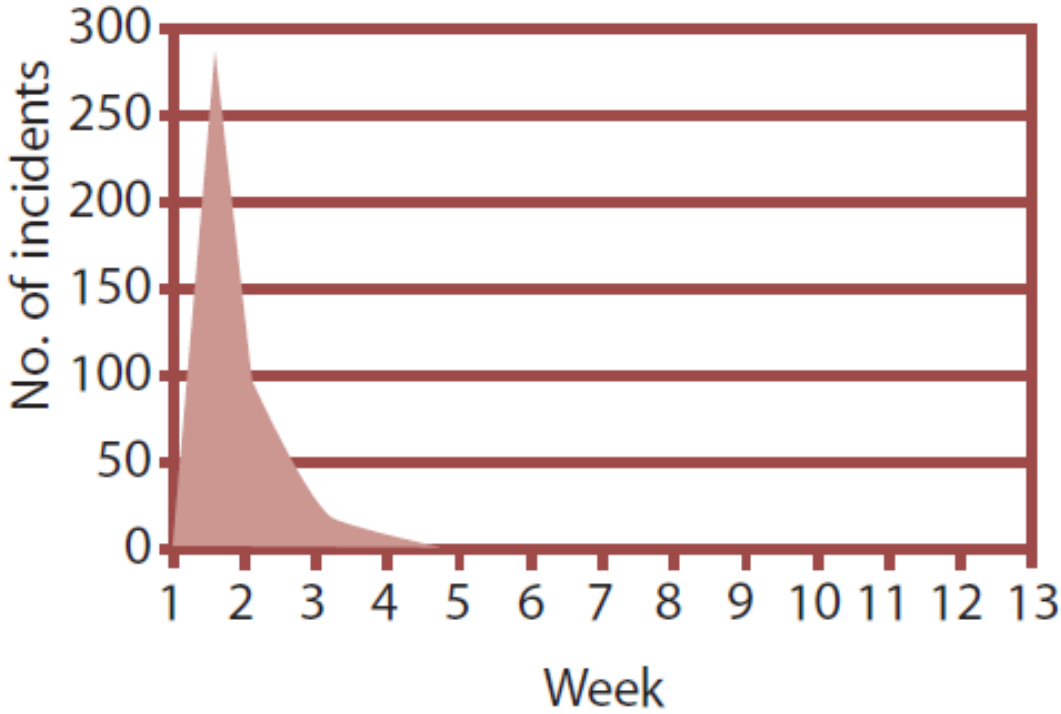
Head Office	Release 1		Release 2		Rel. 3			
Branch 1		Release 1	Release 2		R. 3			
Branch 2		Release 1	Release 2					
Branch 3		Release 1	Release 2					
Month	1	2	3	4	5	6	7	8

A phased roll-out across several geographical locations

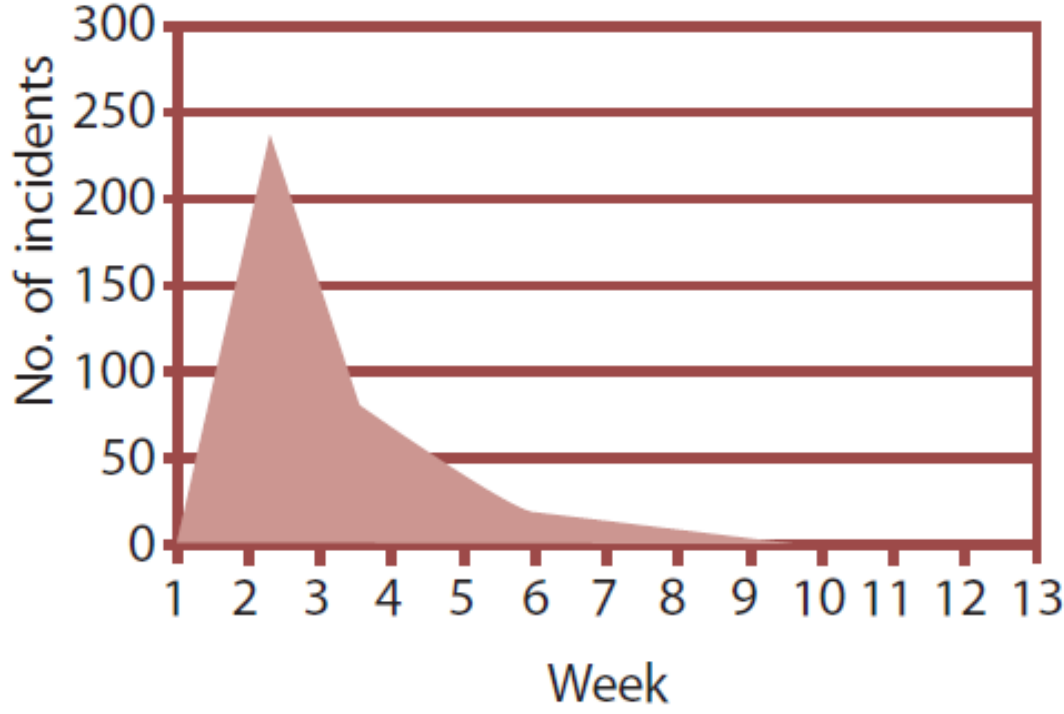
Early life support

Early life support (ELS) provides the opportunity to transition the new or changed service to Service Operations in a controlled manner and establish the new service capability and resources.

Benefits of targeted early life support



Deployment A



Deployment B

Service Validation and Testing

The underlying concept to which Service Testing and Validation contributes is quality assurance – establishing that the Service Design and release will deliver a new or changed service or service offering that is fit for purpose and fit for use.

Evaluation

Evaluation is a generic process that considers whether the performance of something is acceptable, value for money etc. – and whether it will be proceeded with, accepted into use, paid for, etc.



Správa software (SAM)

Audit SW licencí

Následky porušení autorského práva

Občanskoprávní odpovědnost na základě autorského zákona

- náhrada způsobené škody; místo skutečně ušlého zisku se může autor domáhat náhrady ušlého zisku ve výši odměny, která by byla obvyklá za získání licence k užití díla v době jeho užití
- Vydání bezdůvodného obohacení ve výši dvojnásobku ceny licence k užití díla

Přestupková odpovědnost na základě autorského zákona (z.č. 200/1990 Sb § 105c)

- pokuta 150 000 Kč či 100 000 Kč či 50 000 Kč
- náhrada škody

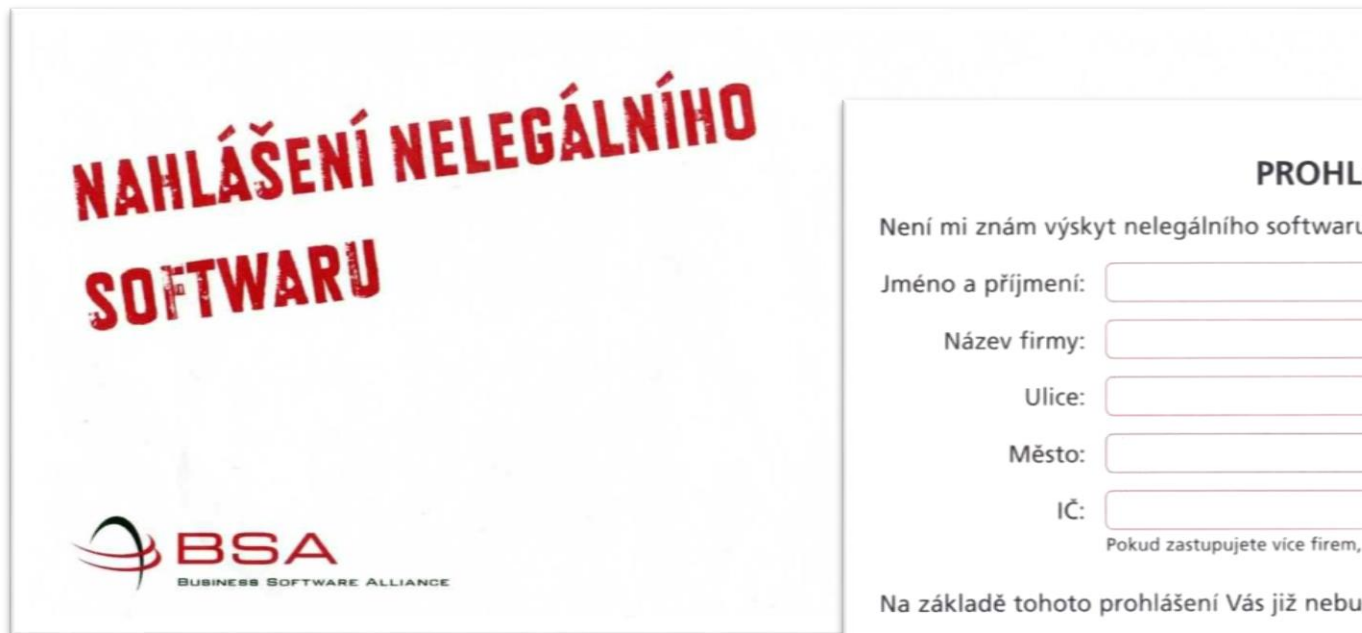
Trestní odpovědnost na základě trestního zákona (z.č. 40/2009 Sb.)

- Zasáhne nikoli nepatrně do zákonem chráněných práv (škoda nejméně 5.000 Kč)
 - odnětí svobody až na dva roky
- Při značném rozsahu či získání značného prospěchu (škoda nejméně 500.000 Kč)
 - odnětí svobody na šest měsíců až 5 let
 - propadnutí věci (např. PC, CD&DVD, kamera apod.)
 - náhrada škody
- Prospěch velkého rozsahu nebo způsobí-li tím jinému škodu velkého rozsahu
 - odnětí svobody na 3 léta až 8 let (škoda nejméně 5 000 000 Kč)

Popis problematiky SW auditu

Složitá licenční politika znemožňuje správné evidování licencí v ERP nebo v účetním systému

Ruční zjištění skutečného stavu ve společnosti je nemožné



PROHLÁŠENÍ O SOFTWAREVÉ ČISTOTĚ

Není mi znám výskyt nelegálního softwaru v naší firmě či mém okolí. Užíváme pouze legální software.

Jméno a příjmení:

Název firmy:


Ulice:

Město: PSČ:

IČ: Podpis:

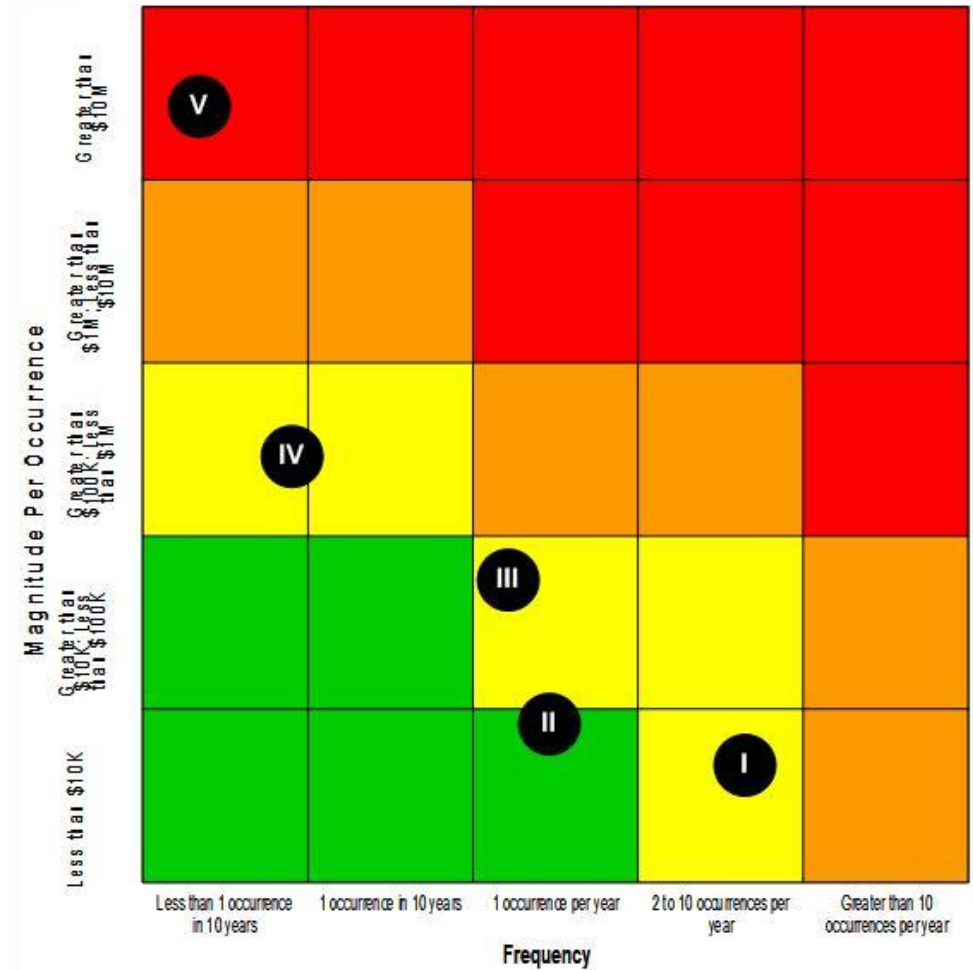
Pokud zastupujete více firem, uveďte zde jejich IČ včetně uvedené firmy.

Na základě tohoto prohlášení Vás již nebudeme v příštích letech kontaktovat.



Risk Management Model

Risk Management Model		Probability		
		Low	Medium	High
Impact	Severe/Critical	Substantial management required	Must monitor and manage risks	Extensive management crucial
	Moderate	May accept risks but monitor them	Management effort useful	Management effort required
	Limited/Minor	Accept risks	Accept risks but monitor them	Monitor and manage risks



Procesy ISO SAM 19770

Procesy řízení organizace související se správou softwarových aktiv			
4 Řídicí prostředí pro správu softwarových aktiv			
Podnikový řídicí proces pro SAM	Úlohy a odpovědnosti pro SAM	Politiky, procesy a postupy pro SAM	Odborná způsobilost pro SAM
4.3 Plánovací a implementační procesy pro správu softwarových aktiv			
Plánování SAM	Implementace SAM	Monitorování a přezkoumávání SAM	Neustálé zlepšování SAM
Hlavní procesy správy softwarových aktiv			
4.4 Inventarizační procesy správy softwarových aktiv			
Identifikace softwarových aktiv	Správa inventáře softwarových aktiv	Řízení softwarových aktiv	
4.5 Ověřovací procesy pro správu softwarových aktiv			
Ověření dokladů o softwarových aktivech	Shoda s licenčními ujednáními na software	Shoda s požadavky na zabezpečení softwarových aktiv	Ověřování shody pro SAM
4.6 Procesy pro provozní řízení a styčné body pro SAM			
Řízení vztahů a správa smluv pro SAM	Finanční řízení pro SAM	Správa úrovně služeb pro SAM	Správa bezpečnosti pro SAM
Primární styčné procesy správy softwarových aktiv			
4.7 Styčné body procesu životního cyklu pro SAM			
Proces správy změn	Proces vývoje softwaru	Proces nasazení softwaru	Proces řešení problémů
Nákupní proces	Proces řízení uvolnění softwaru	Proces správy žádostí o technickou podporu	Proces vyřazování

Vyhodnocení SW auditu - Paret 80/20

Zákazník dokáže snadno identifikovat chybějící nebo přebývající licence

Zákazník dokáže snadno změřit velikost rizika

Produkt	Licence	Instalace	Rozdíl	Výrobce
McAfee VirusScan Enterprise 8	187	131	56	Network Associates, Inc.
Kerio WinRoute Firewall 6	110	3	107	Kerio Technologies Inc.
Evidence počítačů 4	100	10		ALC, spol. s r.o.
Total Commander 6	59	129		Christian Ghisler
AVG 7	50	1	49	Grisoft software, s.r.o.
Microsoft Small Business Server 2003 CAL	35		35	Microsoft Corporation
Microsoft Windows Vista Business	15		15	Microsoft Corporation
Info Office 4	13	2	11	Info Office s.r.o.
Microsoft Office 2003 Basic Edition	11	4	7	Microsoft Corporation
McAfee Desktop Firewall 8	11	6	5	Network Associates, Inc.
Microsoft Windows Server 2003 CAL	10		10	Microsoft Corporation
Windows Terminal Server 2003 CAL	10		10	Microsoft Corporation
Microsoft Exchange server 2003 CAL	10		10	Microsoft Corporation
Microsoft Windows Vista Ultimate	8		8	Microsoft Corporation

Produkt	Licence	Instalace	Rozdíl	Výrobce	Cena	Riziko
AutoCAD 2007		14	-14	Autodesk, Inc.	151600	-2122400
STEP 7 verze 5	4	24	-20	Siemens AG	70000	-1400000
EPLAN 5		7	-7	EPLAN Software & Service	177000	-1239000
RSLogix 5000 13		4	-4	Rockwell Software, Inc.	100000	-400000
AutoCAD 2002		2	-2	Autodesk, Inc.	151600	-303200
AutoCAD LT 2005	1	9	-8	Autodesk, Inc.	36800	-294400
SIMATIC S7 5		13	-13	Siemens AG	14500	-188500
Borland Delphi 7 Personal		2	-2	Borland International	34400	-68800
PC Translator		21	-21	LangSoft s.r.o.	3000	-63000
AutoCAD LT 2002		1	-1	Autodesk, Inc.	36800	-36800
Borland Delphi 5 Enterprise		1	1	Borland International	34400	34400

na lice...	OEM licence	Sdílená li...	Sériové číslo licence
	Ano		
	Ano		
	Ano		
	Ano		
	Ano		

Počet vybraných/celkem: 0/288 Uživatel: Aleš Studený

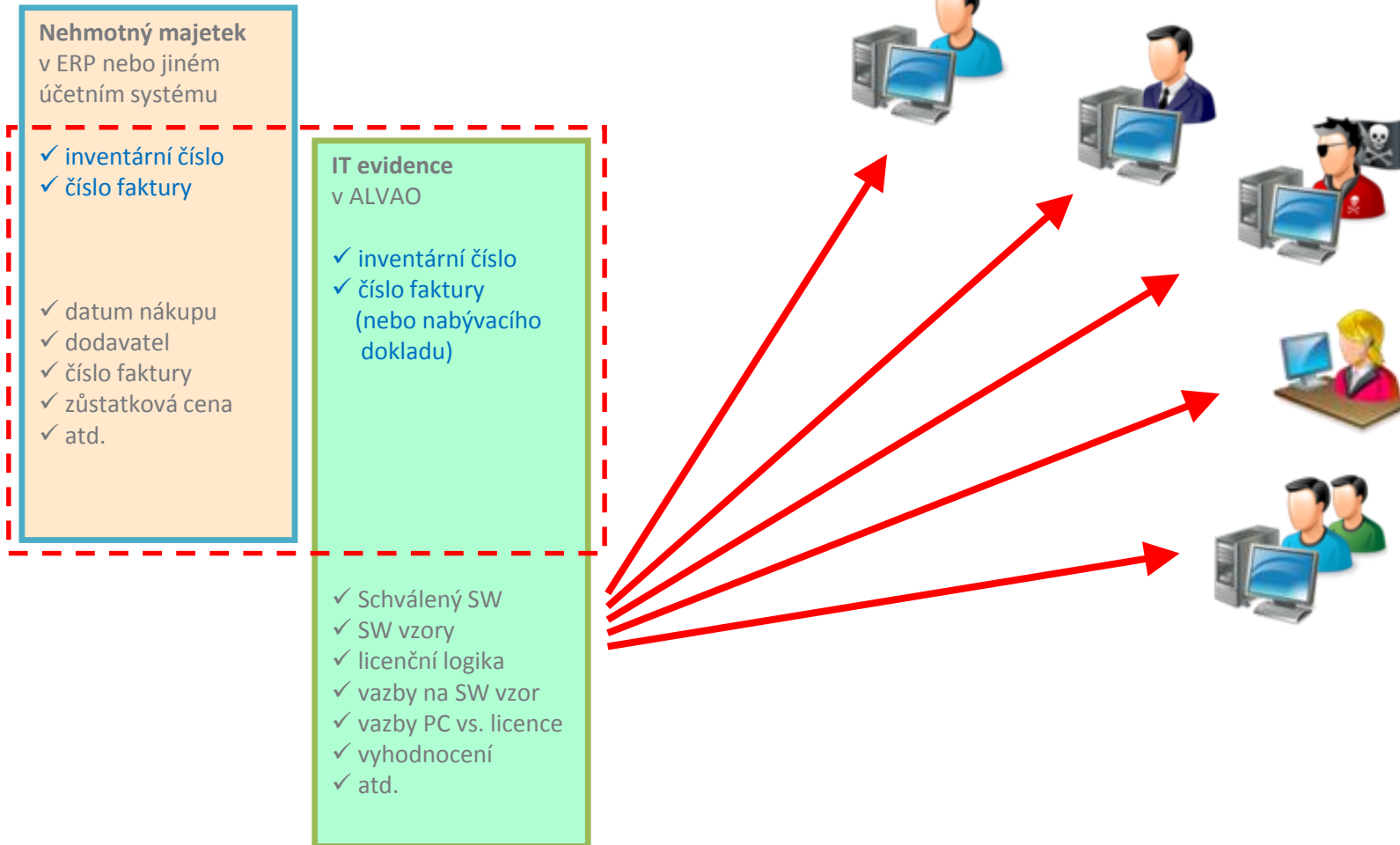
Evidence SW licencí

Některé licence jsou zaváděny jednotlivě, jiné licence jako „balík“.

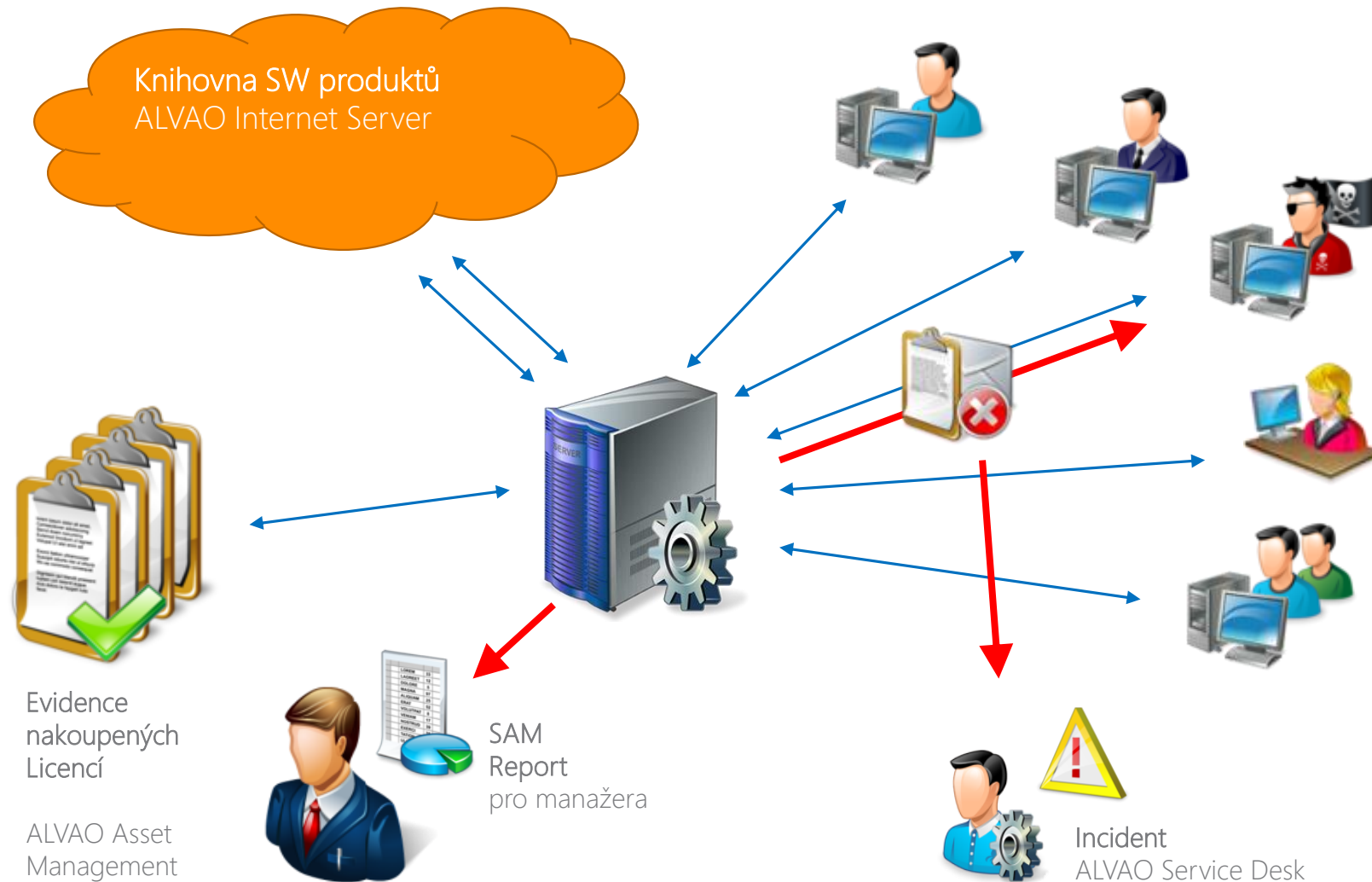
Nové verze evidovány jako zhodnocení majetku, které jako nový nehmotný majetek.

OEM licence nejsou evidovány vůbec (jsou součástí hmotného majetku).

Řešení pořádku v SW licencích



Řešení pořádku v SW licencích





Video: SAM Assistant

Interní SW audit

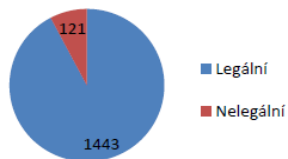
Přínosy pro IT manažera

Software Management Report

Tento report vám pomáhá při kontrole procesu správy softwarových aktiv. Vidíte, v jakém stavu máte software ve společnosti a jak se využívají licence. Zda proces funguje správně a všichni pracují, jak mají. Zda jsou licence zapsány a přiděleny. Také vidíte, zda technologické komponenty jsou v pořádku. Report zobrazuje primárně informace o auditovaném software.

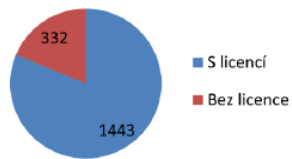
Kontrola zapisování licencí a jejich přidělování

Přehled licencí a instalací



Více informací najdete v dialogu „Přehled licencí a instalací“

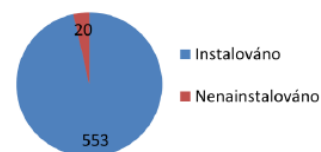
Instalace bez přidělených licencí



TOP 3 počítače bez licence:

- NTB152 (Jan Votava)
- NTB96 (Sklad)
- NTB168 (Petr Novák)

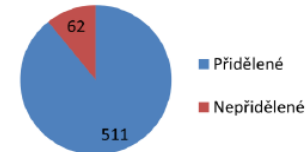
Zbytečně přidělené licence



TOP 3 počítače se zbytečnou licenci:

- NTB12 (Libor Dvořák)
- NTB16 (Jiří Kopeček)
- NTB18 (Serverovna)

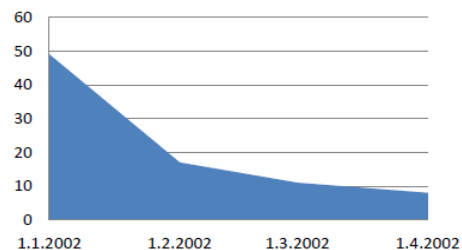
Nepřidělené licence



TOP 3 volné licence:

- MS Office (12 kusů)
- MS Project (3 kusy)
- Nero (23 kusů)

Nově zapsané licence (doklady)



Možné problémy v evidenci licencí (dokladů):

- 18 licencí nemá vazbu na doklad o nabytí
- 3 licence nemají uvedenou jazykovou mutaci

Více informací najdete v dialogu „Evidence licencí“

Končící licence v následujících třech měsících:

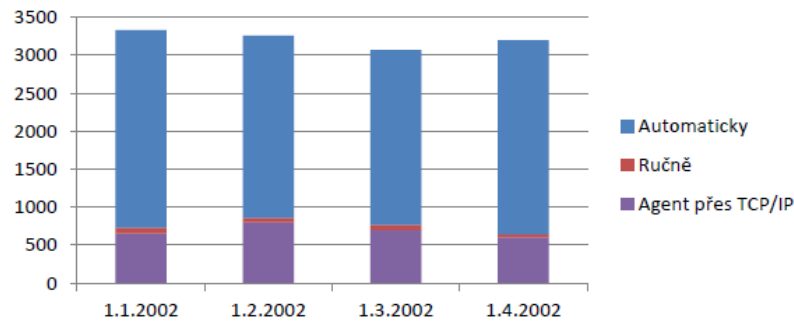
Název produktu	Kusů	Platnost do
Microsoft Server 2003	3	17.5.2011
Microsoft Office 2003	18	3.6.2011
AutoCAD	3	14.7.2011
+ dalších 17 licencí bude končit během následujících tří měsíců		

Více informací najdete v dialogu „Evidence licencí“ sloupec „Platnost do“

Přínosy pro IT manažera

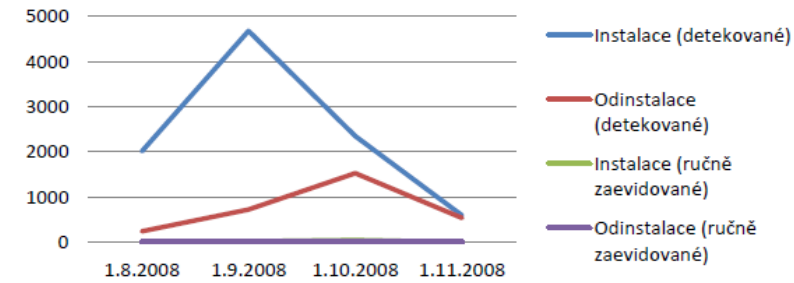
Kontrola technologické části systému

Provedené SW detekce počítačů



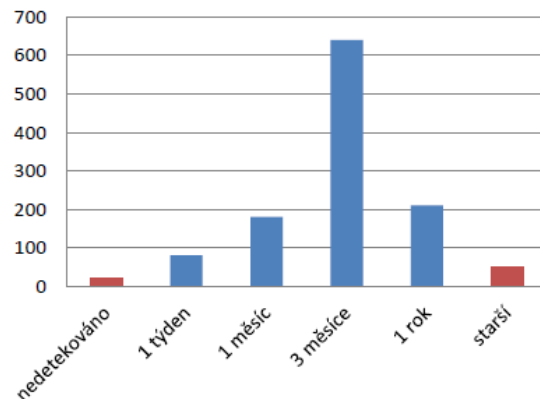
Více informací najdete na záložce „Detekce“

Instalace a odinstalace software



Více informací najdete na záložce „Deník“

Histogram stáří detekcí



Více informací najdete na záložce „Detekce“

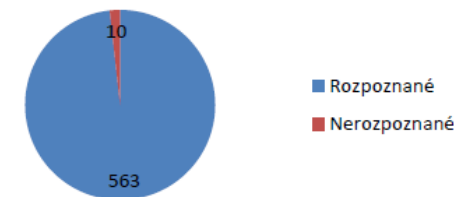
TOP 3 počítače, ještě nedetekované:

- NTB152 (Jan Dvořák)
- PC785 (Libor Novák)
- NTB96 (Jiří Ostrý)

TOP 3 počítače, které mají nestarší detekci:

- NTB123 (Veronika Vlídňá)
- S45 (Serverovna Brno)
- S12 (Serverovna Praha)

Softwarové produkty



Více informací najdete na záložce „Software“ a nastavení aktualizací knihovny najdete v aplikaci Collector

Knihovna

byla naposledy aktualizována dne: 13.4.2011

Nerozpoznané vzory

byly naposledy odeslány dne: 13.4.2011



Knowledge Management

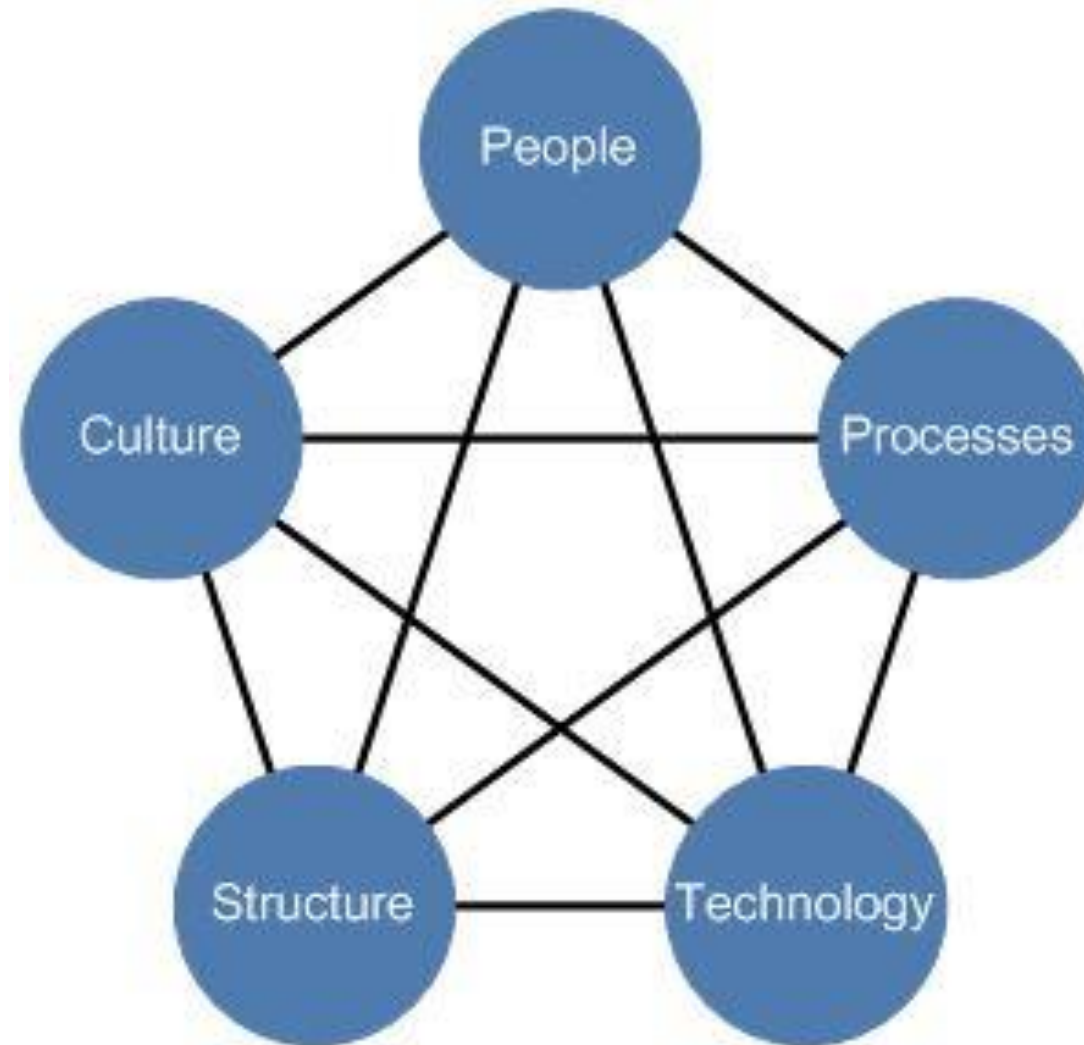
ITIL: Service Transition

Purpose & goal

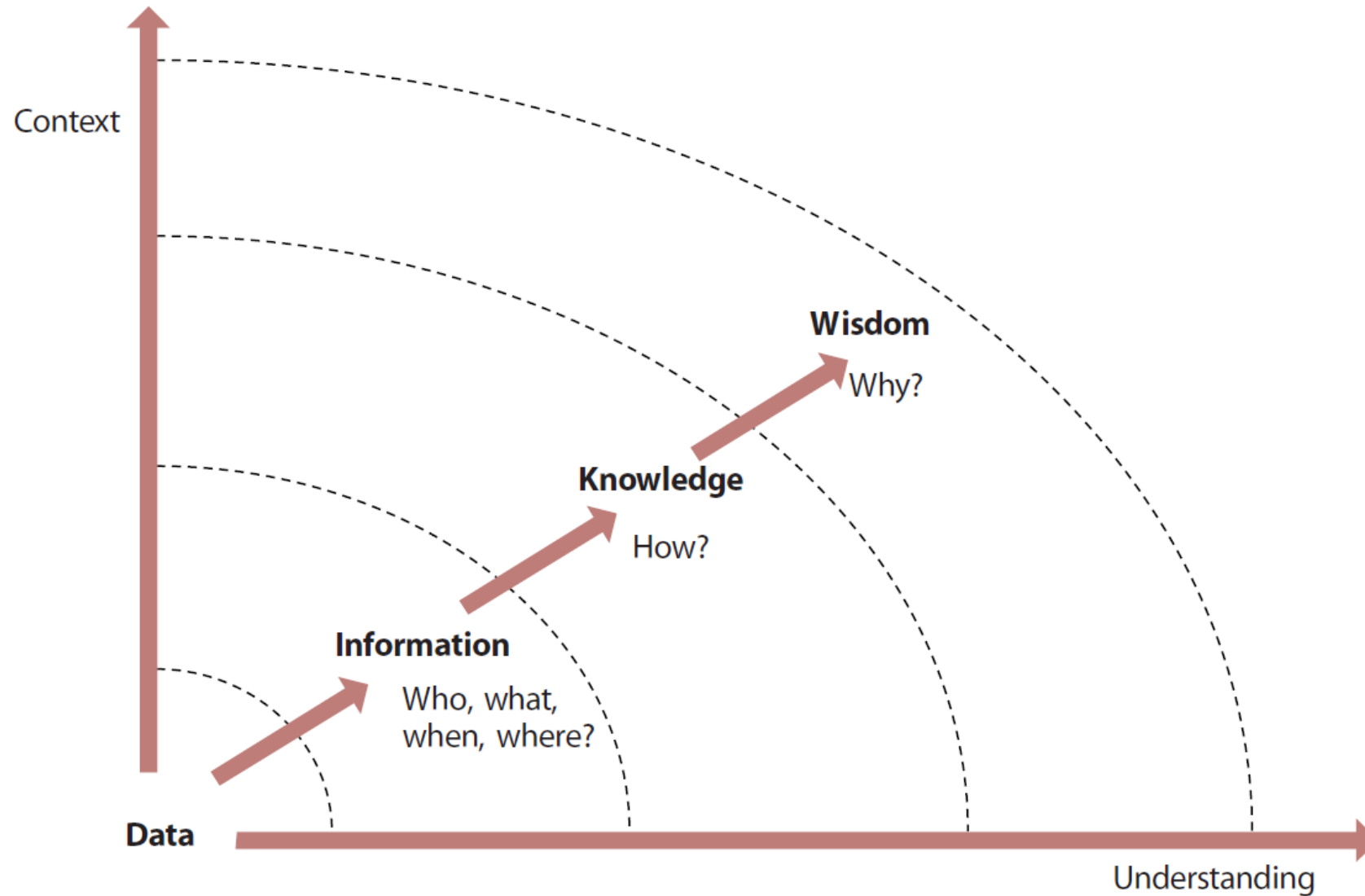
The purpose of Knowledge Management is to ensure that the right information is delivered to the appropriate place or competent person at the right time to enable informed decision.

The goal of Knowledge Management is to enable organizations to improve the quality of management decision making by ensuring that reliable and secure information and data is available throughout the service lifecycle.

Knowledge Management



Knowledge Management - DIKW



Knowledge transfer

Learning styles

Knowledge visualization

Driving behavior

Seminars, Webinars and advertising

Journals and newsletters

Service Knowledge Management System (SKMS)

The experience of staff

Records of peripheral matters, e.g. weather, user numbers and behaviour, organization's performance figures

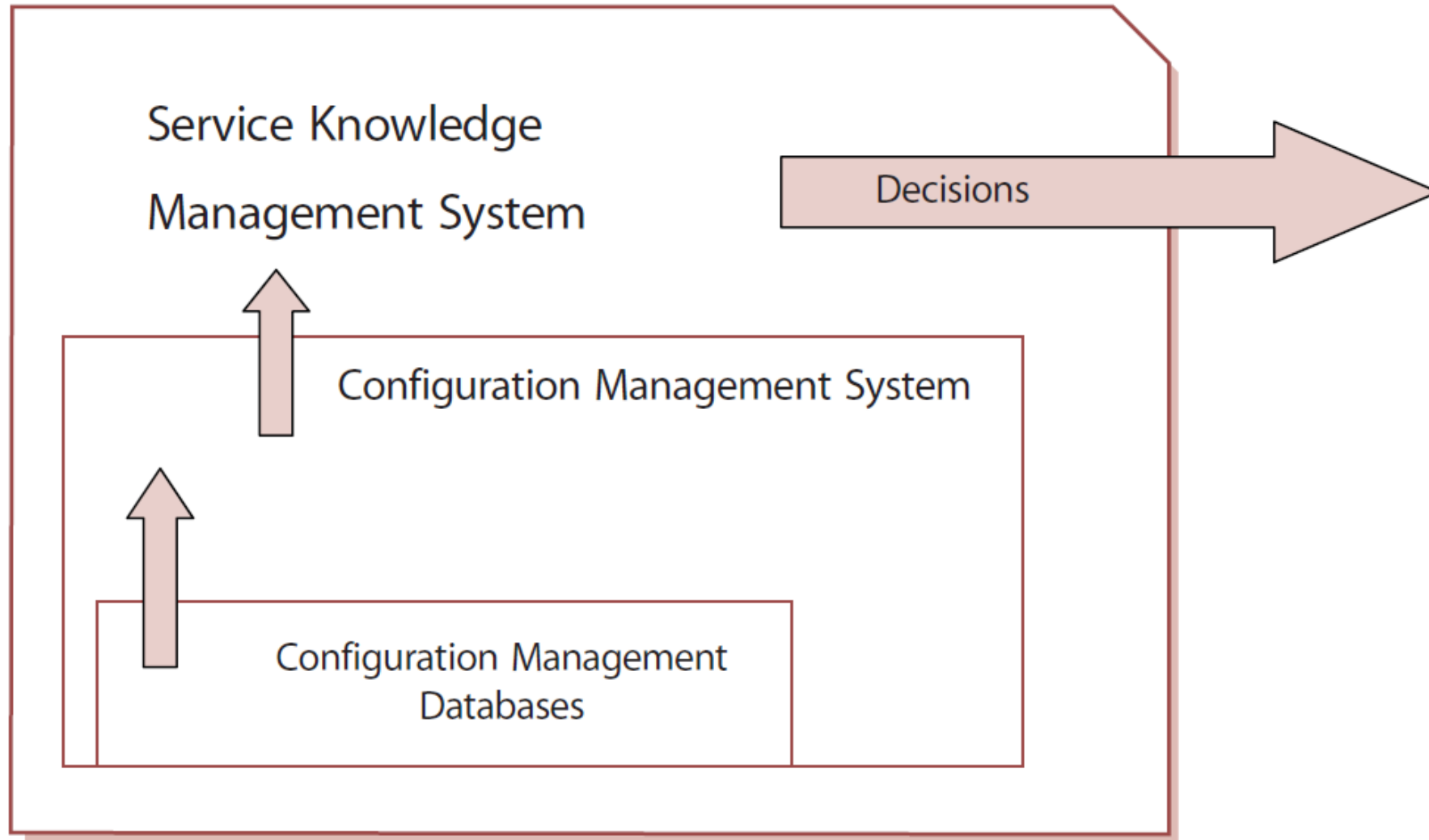
Suppliers' and partners' requirements, abilities and expectations

Typical and anticipated user skill levels.

KB - Determine and prioritize technology needs



Relationship of the CMDB, CMS, SKMS



Measuring benefit

Incidents and lost time categorized as 'lack of user knowledge'

Average diagnosis and repair time for faults fixed in-house

Incidents related to new or changed services fixed by reference to knowledge base.

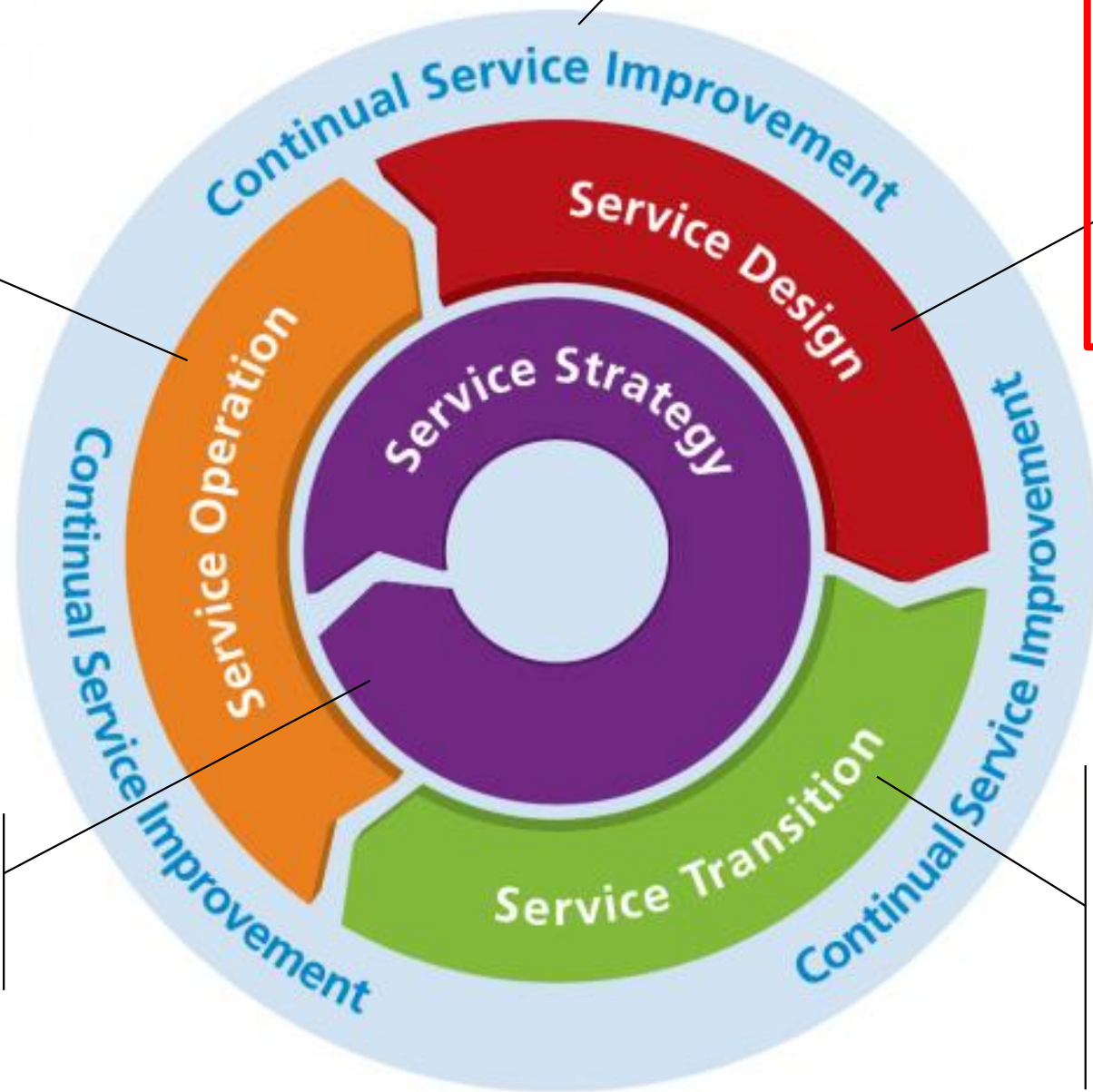


Service Design

ITIL Core

7-Step Improvement Process

- Service Catalogue Management
- Service Level Management
- Capacity Management
- Availability Management
- IT Service Continuity Management
- Information Security Management
- Supplier Management



- Event Management
- Incident Management
- Request Fulfilment
- Problem Management
- Access Management

- Service Desk
- Technical Management
- IT Operations Management
- Application Management

- Financial Management
- Return on Investment
- Service Portfolio Management
- Demand Management

- Transition planning and support
- Change Management
- Service asset and configuration management
- Release and deployment management
- Service validation and testing
- Evaluation
- Knowledge management

Value Proposition for Service Design

A service is a means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.

Five individual aspects of Service Design

These are the design of:

- New or changed services
- Service Management systems and tools, especially the Service Portfolio, including the Service Catalogue
- Technology architecture and management systems
- The processes required
- Measurement methods and metrics.

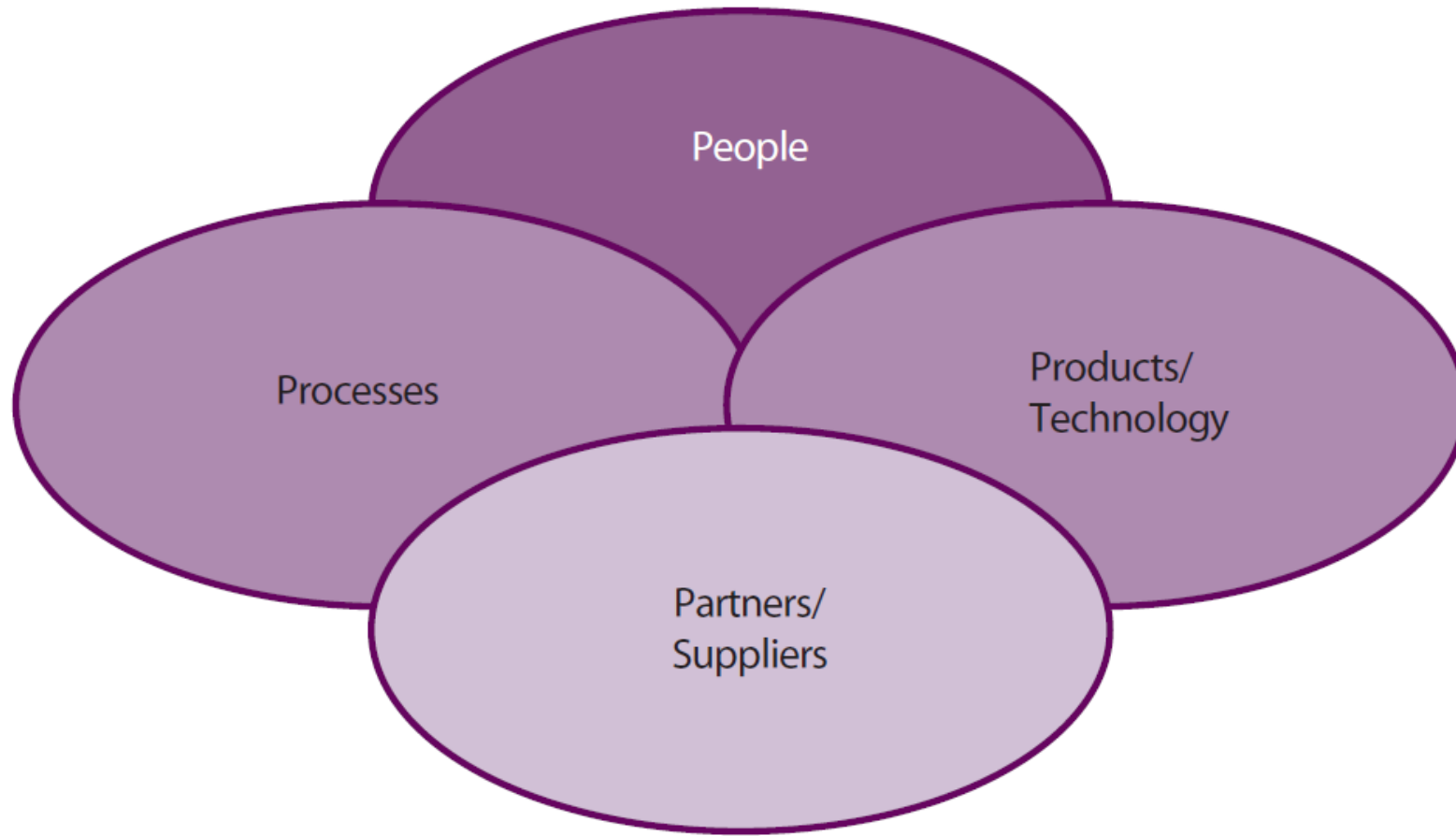
Service Design goals

Producing quality, secure and resilient designs for new or improved services

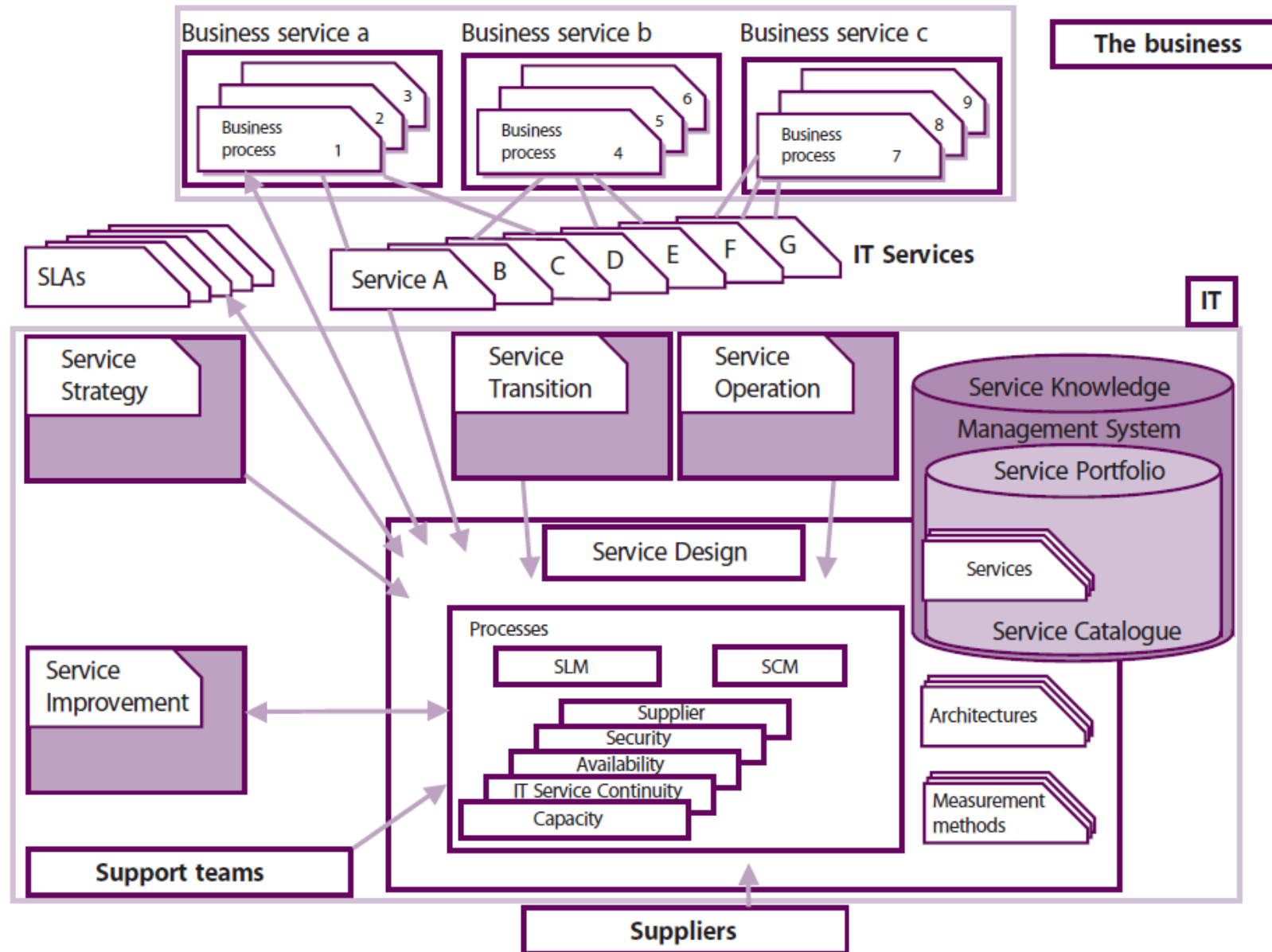
Taking service strategies and ensuring they are reflected in the service design processes and the service designs that are produced

Measuring the effectiveness and efficiency of service design and the supporting processes

The Four Ps



Scope of Service Design



Service design package (SDP)

Document(s) defining all aspects of an IT service and its requirements through each stage of its lifecycle. A service design package is produced for each new IT service, major change or IT service retirement.

This pack is then passed from Service Design to Service Transition and details all aspects of the service and its requirements through all of the subsequent stages of its lifecycle.



Service Catalogue Management

ITIL: Service Design

Purpose of Service Catalogue Manag.

The purpose of Service Catalogue Management is to provide a single source of consistent information on all of the agreed services, and ensure that it is widely available to those who are approved to access it.

Objective of Service Catalogue Manag.

The objective of Service Catalogue Management is to manage the information contained within the Service Catalogue, and to ensure that it is accurate and reflects the current details, status, interfaces and dependencies of all services that are being run, or being prepared to run, in the live environment.

Service Catalogue

A database or structured Document with information about all Live IT Services, including those available for Deployment. The Service Catalogue is the only part of the Service Portfolio published to Customers, and is used to support the sale and delivery of IT Services.

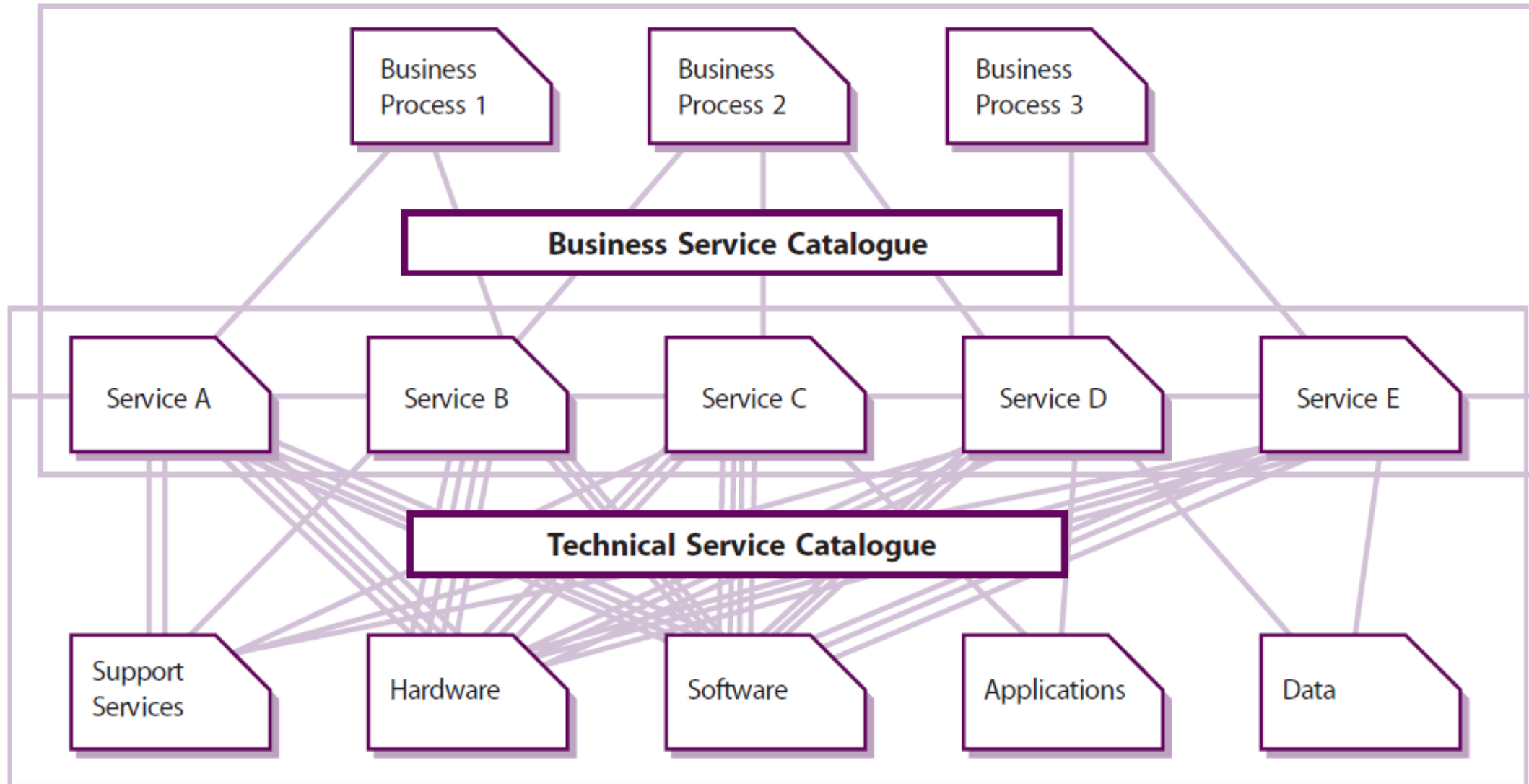
The Service Catalogue includes information about deliverables, prices, contact points, ordering and request Processes.

Service Portfolio

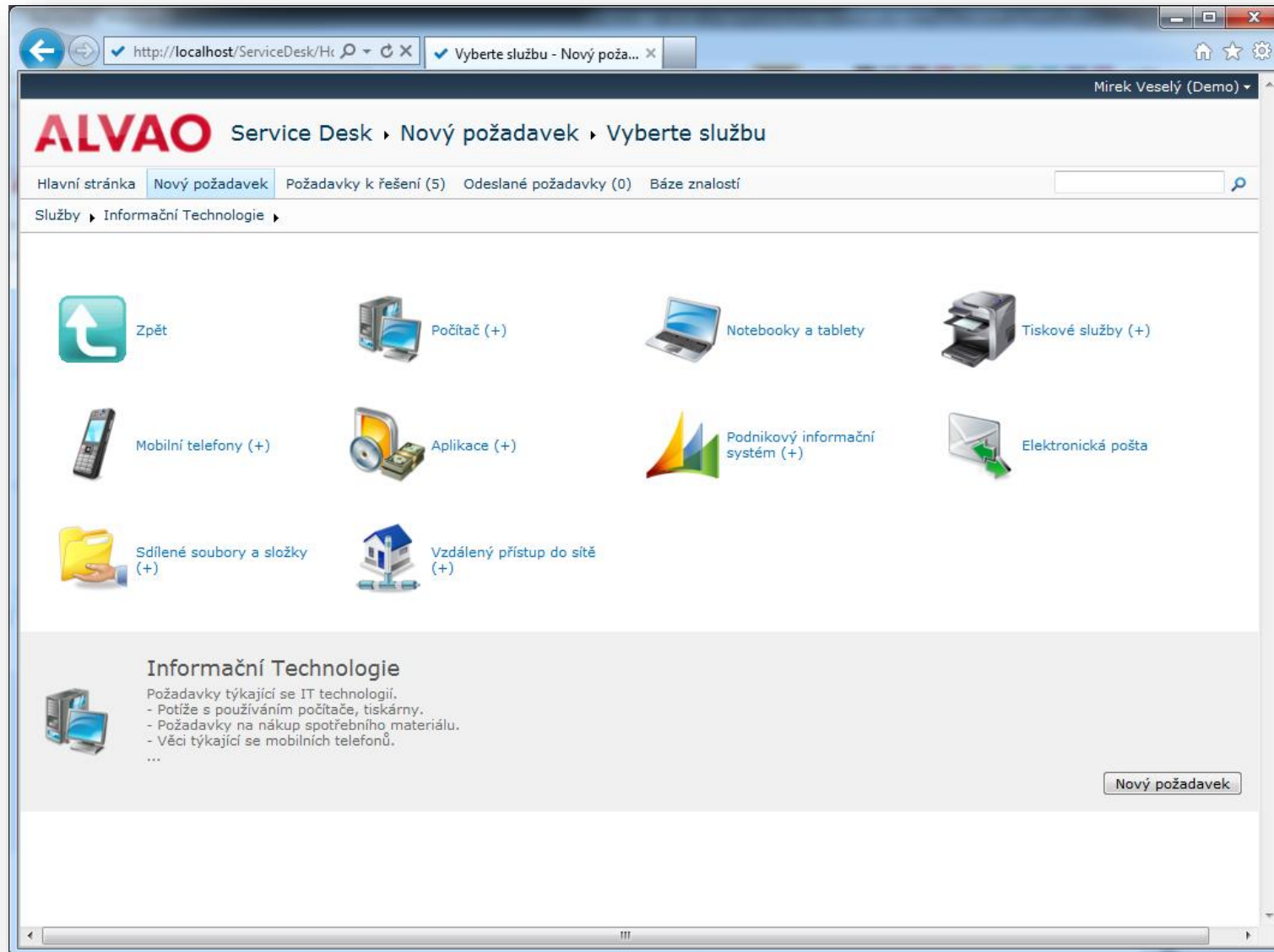
The complete set of Services that are managed by a Service Provider. The Service Portfolio is used to manage the entire Lifecycle of all Services, and includes three Categories: Service Pipeline (proposed or in Development); Service Catalogue (Live or available for Deployment); and Retired Services. See also Service Portfolio Management.

Business vs. Technical Service Catalogue

The Service Catalogue



Srozumitelný katalog služeb



The screenshot displays the ALVAO Service Desk interface. At the top, the browser address bar shows the URL `http://localhost/ServiceDesk/Hr` and the page title "Vyberte službu - Nový požadavek". The user is identified as "Mirek Veselý (Demo)".

The main header features the "ALVAO Service Desk" logo and the current page title "Nový požadavek > Vyberte službu". Below this, a navigation menu includes "Hlavní stránka", "Nový požadavek", "Požadavky k řešení (5)", "Odeslané požadavky (0)", and "Báze znalostí".

The service catalog is organized under the category "Služby > Informační Technologie". It lists the following services:

- Zpět
- Počítač (+)
- Notebooky a tablety
- Tiskové služby (+)
- Mobilní telefony (+)
- Aplikace (+)
- Podnikový informační systém (+)
- Elektronická pošta
- Sdílené soubory a složky (+)
- Vzdálený přístup do sítě (+)

Below the catalog, there is a section for "Informační Technologie" with a description: "Požadavky týkající se IT technologií." followed by a list of examples: "Potíže s používáním počítače, tiskárny.", "Požadavky na nákup spotřebního materiálu.", and "Věci týkající se mobilních telefonů." A "Nový požadavek" button is located at the bottom right of this section.



Service Level Management

ITIL: Service Design

Service Level Management

SLM negotiates, agrees and documents appropriate IT service targets with representatives of the business, and then monitors and produces reports on the service provider's ability to deliver the agreed level of service.

Purpose of Service Level Management

The goal of the Service Level Management process is to ensure that an **agreed level of IT service** is provided for **all current IT services**, and that future services are delivered to agreed achievable targets.

Proactive measures are also taken to seek and implement improvements to the level of service delivered.

Service Level Management objectives

Define, document, agree, monitor, measure, report and review the level of IT services provided

Provide and improve the relationship and communication with the business and customers

Ensure that specific and measurable targets are developed for all IT services

Monitor and improve customer satisfaction with the quality of service delivered

Service Level Agreement (SLA)

An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple customers. See also Operational Level Agreement.

Operational Level Agreement (OLA)

An Agreement between an IT Service Provider and another part of the same Organization. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties. For example there could be an OLA:

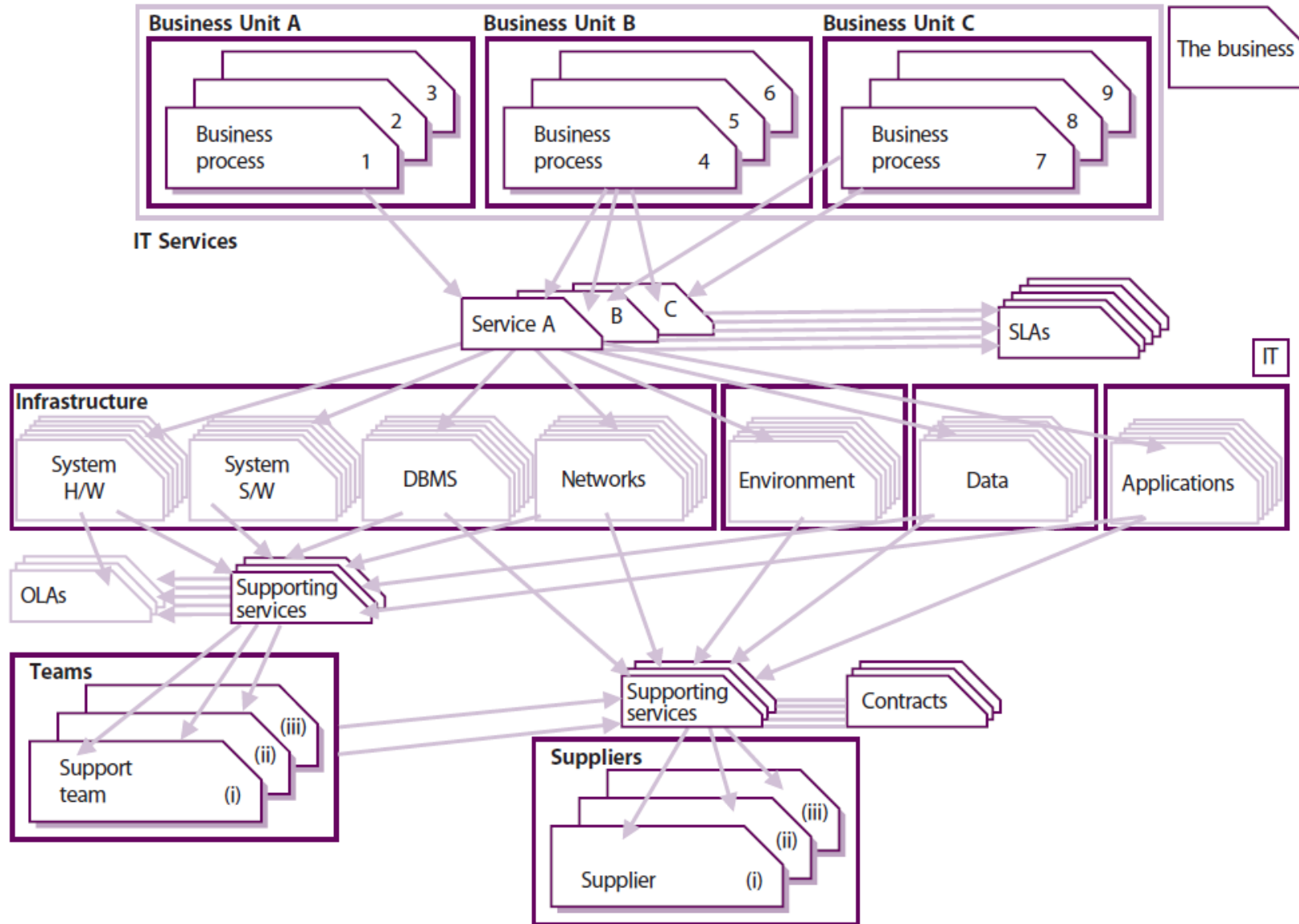
- Between the IT Service Provider and a procurement department to obtain hardware in agreed times
- Between the Service Desk and a Support Group to provide Incident Resolution in agreed times.

Underpinning Contract (UC)

A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer.

The Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA.

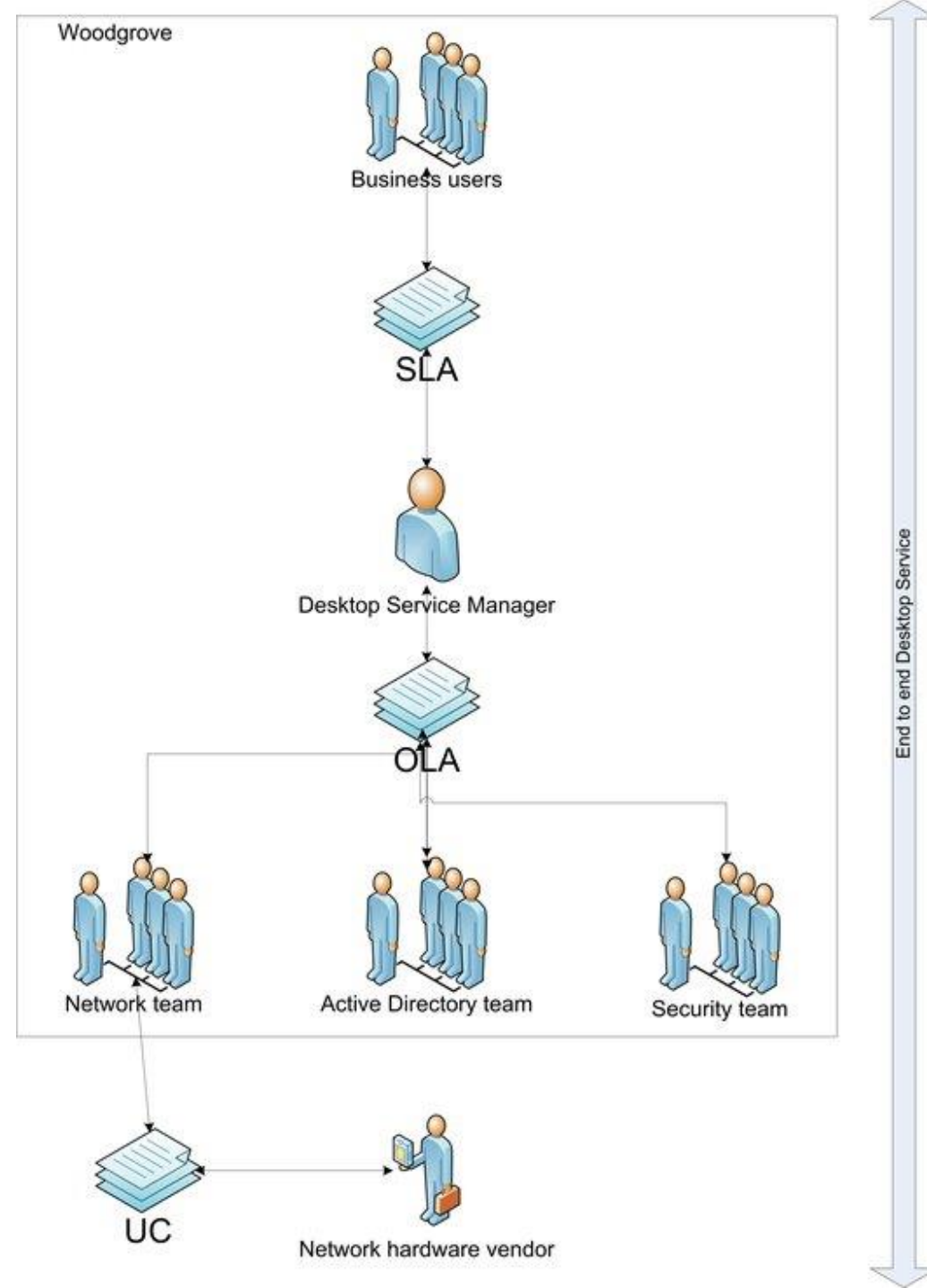
Service Level Management – SLA/OLA



SLA / OLA / UC

Relationship between the customers, SLA, OLA and UC.

End to end Desktop Service



Poor Response

Some organizations have found that, in reality, 'poor response' is sometimes a problem of user perception.

The user, having become used to a particular level of response over a period of time, starts complaining as soon as this is slower.

Take the view that 'if the user thinks the service is slow, then it is'.

Key Performance Indicators

Objective:

- Number or percentage of service targets being met
- Number and severity of service breaches
- Number of services with up-to-date SLAs
- Number of services with timely reports and active service reviews.

Subjective:

- Improvements in customer satisfaction.

Trap of using percentages

Don't fall into the trap of using percentages as the only metric. It is easy to get caught out when there is a small system with limited measurement points (i.e. a single failure in a population of 100 is only 1%; a single failure in a population of 50 is 2% – if the target is 98.5%, then the SLA is already breached).

Always go for number of incidents rather than a percentage on populations of less than 100, and be careful when targets are accepted. This is something organizations have learned the hard way.

SLA monitoring chart (SLAM)

SLAM chart give an 'at-a-glance' overview of how achievements have measured up against targets.

SLAM Chart

Period Target	Jan	Feb	March	April	May	June	July	August
A	Target Met	Target Met	Target Met	Target Met	Target Met	Target Threatened	Target Threatened	Target Breached
B	Target Threatened	Target Threatened	Target Breached	Target Met	Target Met	Target Met	Target Met	Target Met
C	Target Met	Target Met	Target Met	Target Met	Target Met	Target Met	Target Met	Target Breached
D	Target Met	Target Met	Target Met	Target Breached	Target Breached	Target Threatened	Target Threatened	Target Met
E	Target Met	Target Met	Target Met	Target Met	Target Met	Target Met	Target Met	Target Breached
F	Target Met	Target Met	Target Met	Target Met	Target Threatened	Target Threatened	Target Threatened	Target Breached

Target Met

Target Threatened

Target Breached



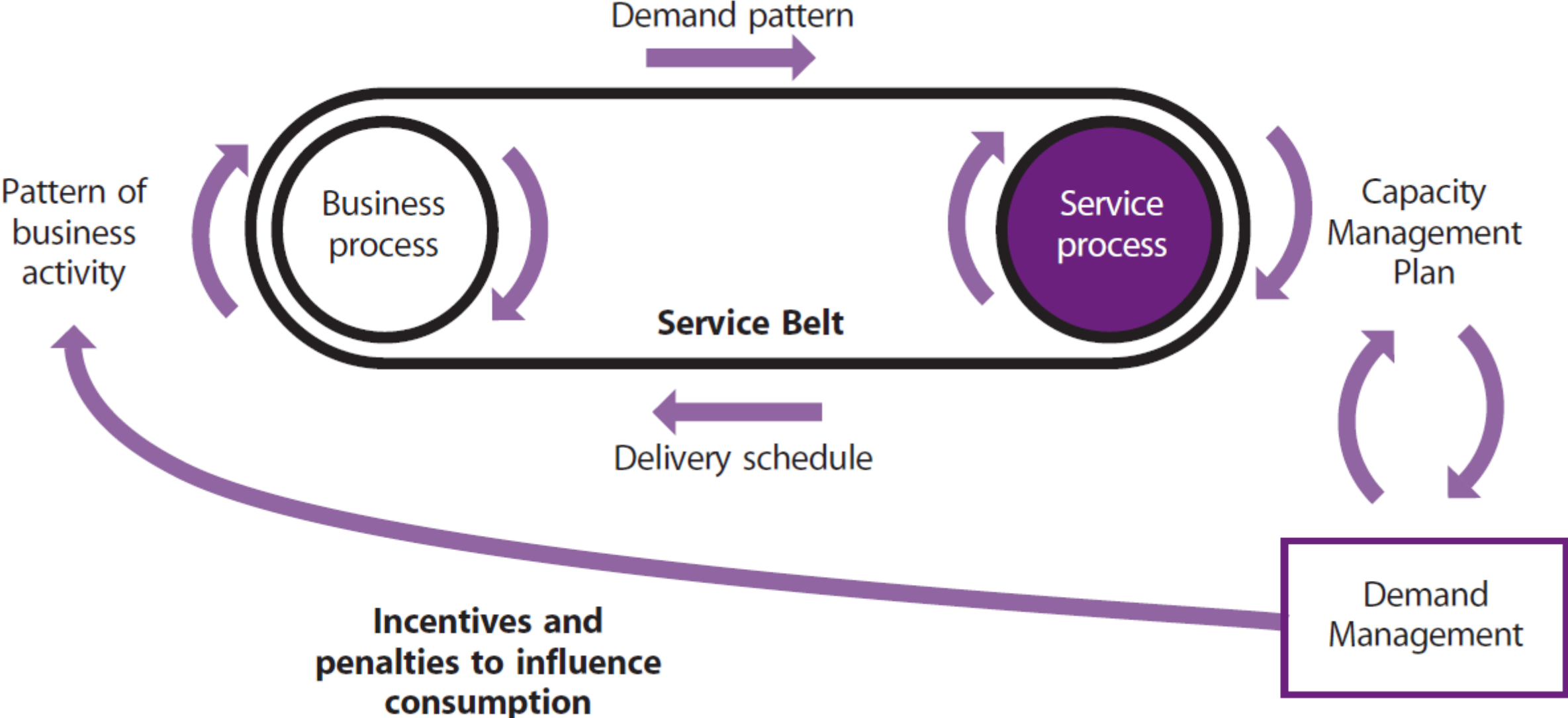
Capacity Management

ITIL: Service Design

Capacity management

The goal of the Capacity Management process is to ensure that cost-justifiable IT capacity in all areas of IT always exists and is matched to the current and future agreed needs of the business, in a timely manner.

Pattern of Business Activity (PBA)



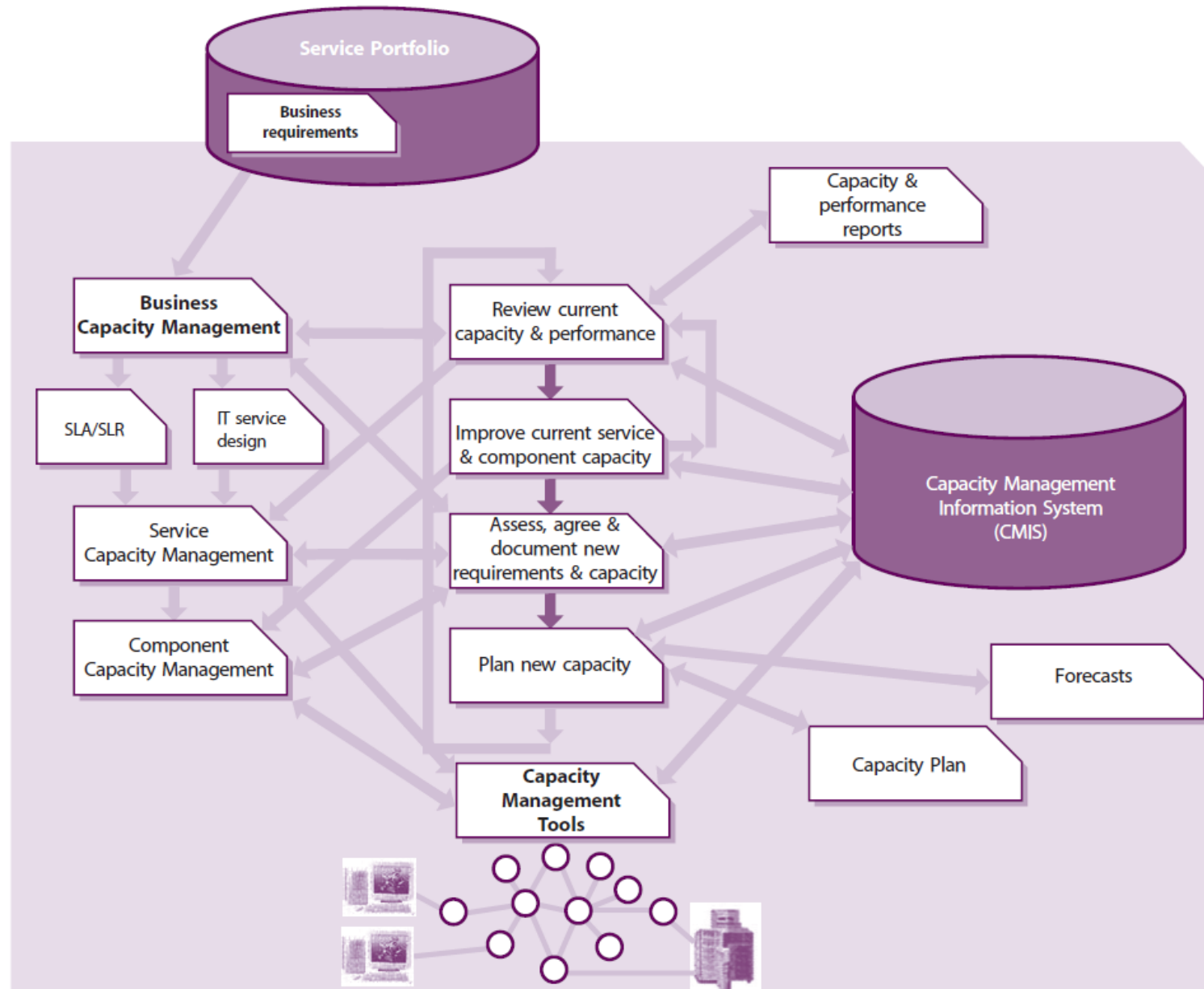
Capacity Management sub-processes

Business Capacity Management

Service Capacity Management

Component Capacity Management

Capacity Management sub-processes



Utilization monitoring

- Processor / Memory utilization
- Per cent processor per transaction type
- IO rates (physical and buffer) and device utilization
- Queue lengths
- Disk utilization
- Response times
- Concurrent user numbers
- Network traffic rates.



Availability Management

ITIL: Service Design

Availability Management

The scope of the Availability Management process covers the design, implementation, measurement, management and improvement of **IT service** and **component** availability.

Two interconnected levels:

Service availability: involves all aspects of service availability and unavailability and the impact of component availability, or the potential impact of component unavailability on service availability

Component availability: involves all aspect

Availability

Ability of an IT service or other configuration item to perform its agreed function when required. Availability is determined by reliability, maintainability, serviceability, performance and security.

Availability is usually calculated as a percentage. This calculation is often based on agreed service time and downtime. It is best practice to calculate availability of an IT service using measurements of the business output.

Availability as a percentage:

$$\text{Availability (\%)} = \frac{(\text{Agreed Service Time} - \text{downtime})}{\text{Agreed Service Time}} \times 100 \%$$

Note: Downtime should only be included in the above calculation when it occurs within the Agreed Service Time (AST). However, total downtime should also be recorded and reported.

Reliability

A measure of how long a service, component or CI can perform its agreed function without interruption.

The reliability of the service can be improved by increasing the reliability of individual components or by increasing the resilience of the service to individual component failure (i.e. increasing the component redundancy, e.g. By using load-balancing techniques).

Reliability -> MTBSI / MTBF

It is often measured and reported as Mean Time Between Service Incidents (MTBSI) or Mean Time Between Failures (MTBF):

$$\text{Reliability (MTBF in hours)} = \frac{\text{Available time in hours}}{\text{Number of breaks}}$$

$$\text{Reliability (MTBSI in hours)} = \frac{\text{Available time in hours} - \text{Total downtime in hours}}{\text{Number of breaks}}$$

Maintainability

A measure of how quickly and effectively a service, component or CI can be restored to normal working after a failure.

It is measured and reported as Mean Time to Restore Service (MTRS).

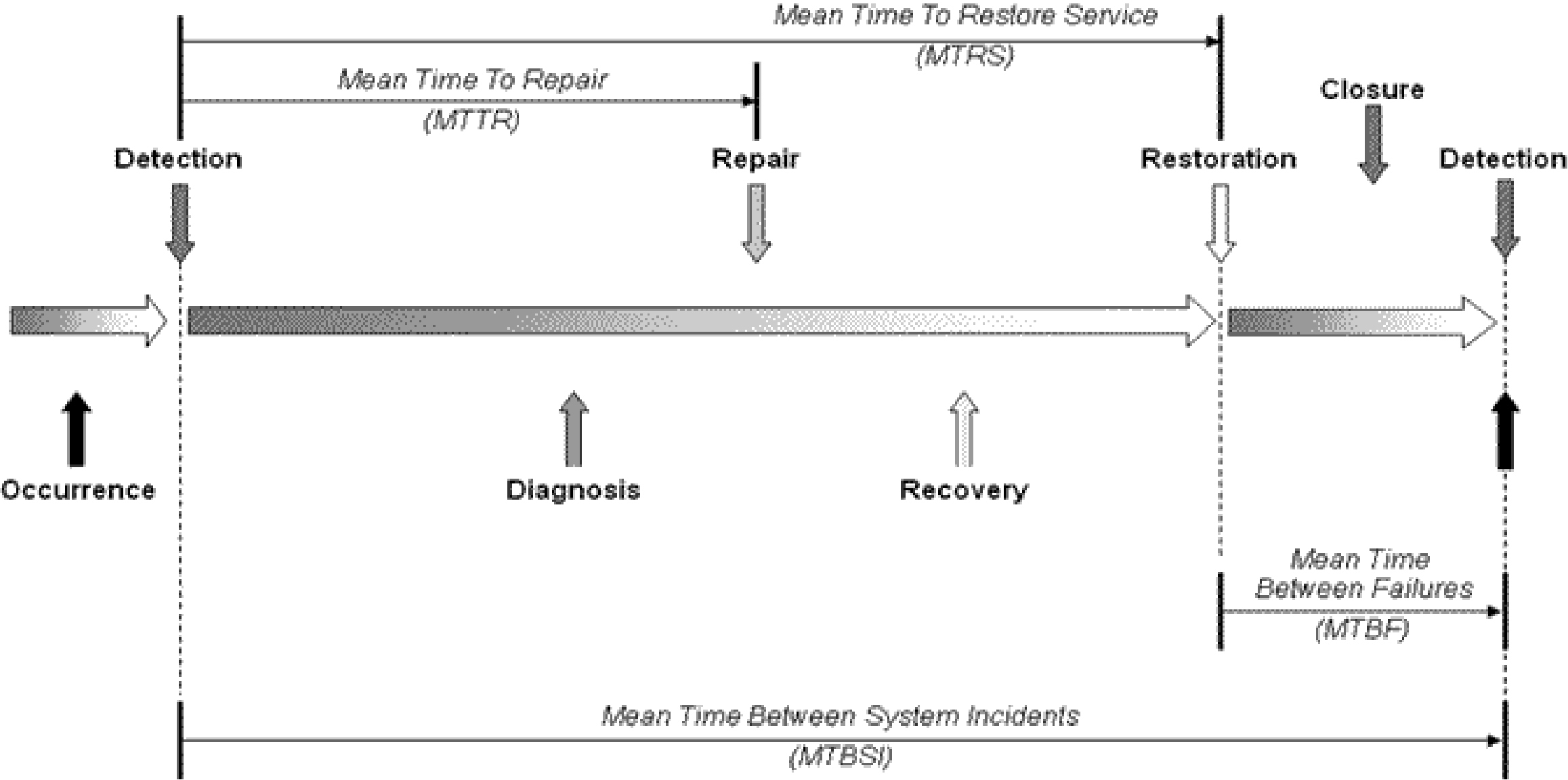
Note: Mean Time to Repair (MTTR) is sometimes incorrectly used instead of mean time to restore service.

Maintainability -> MTRS

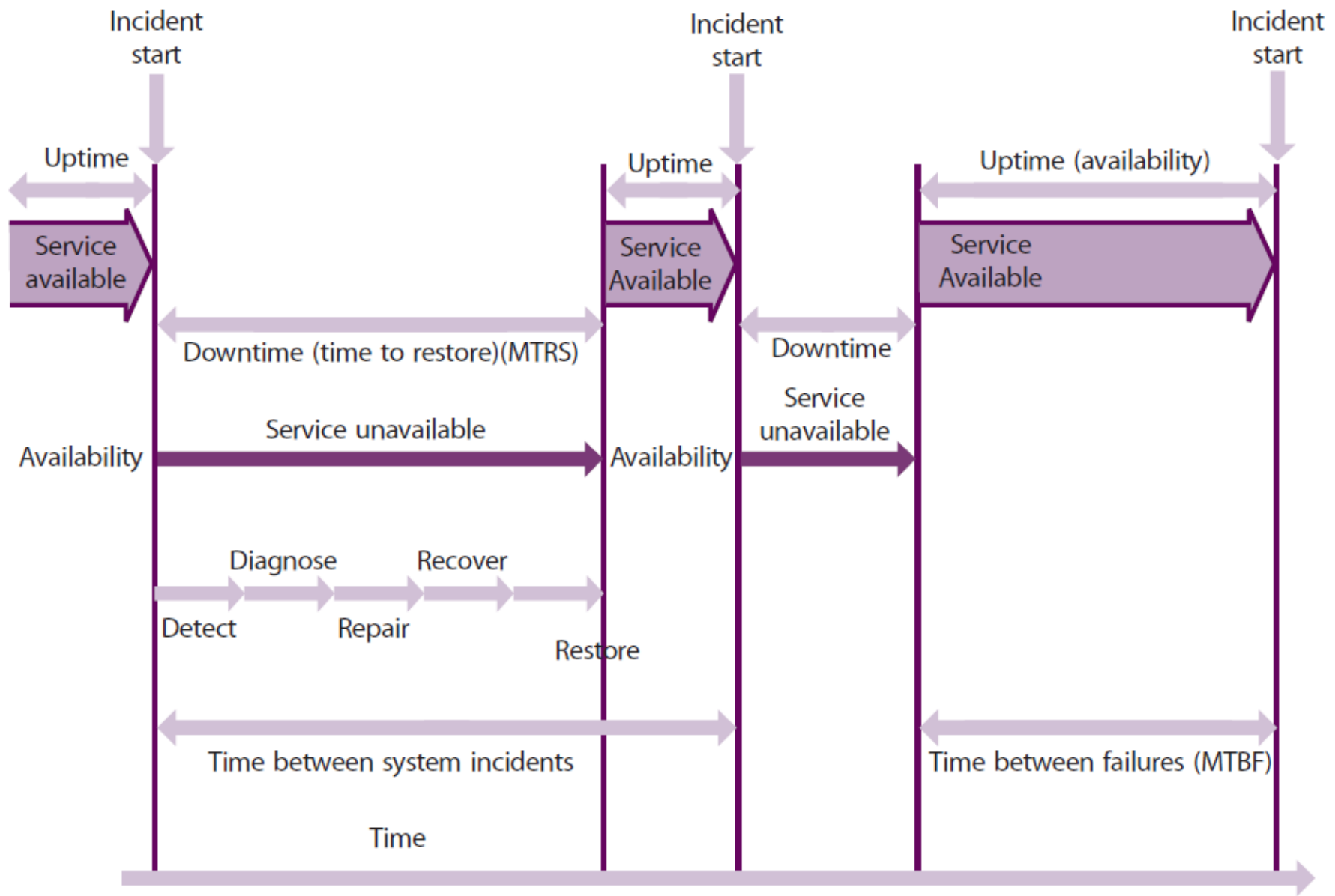
Maintainability
(MTRS in hours)

$$= \frac{\text{Total downtime in hours}}{\text{Number of service breaks}}$$

MTTR / MTRS / MTBF / MTBSI



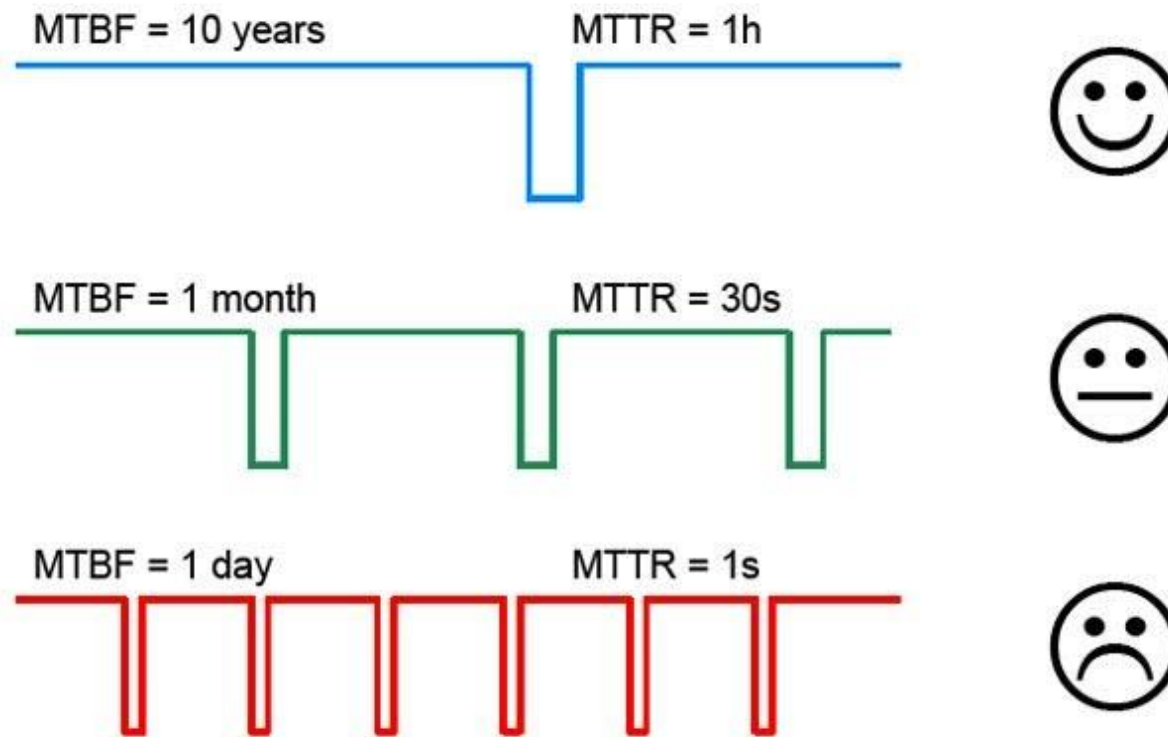
Expanded incident lifecycle



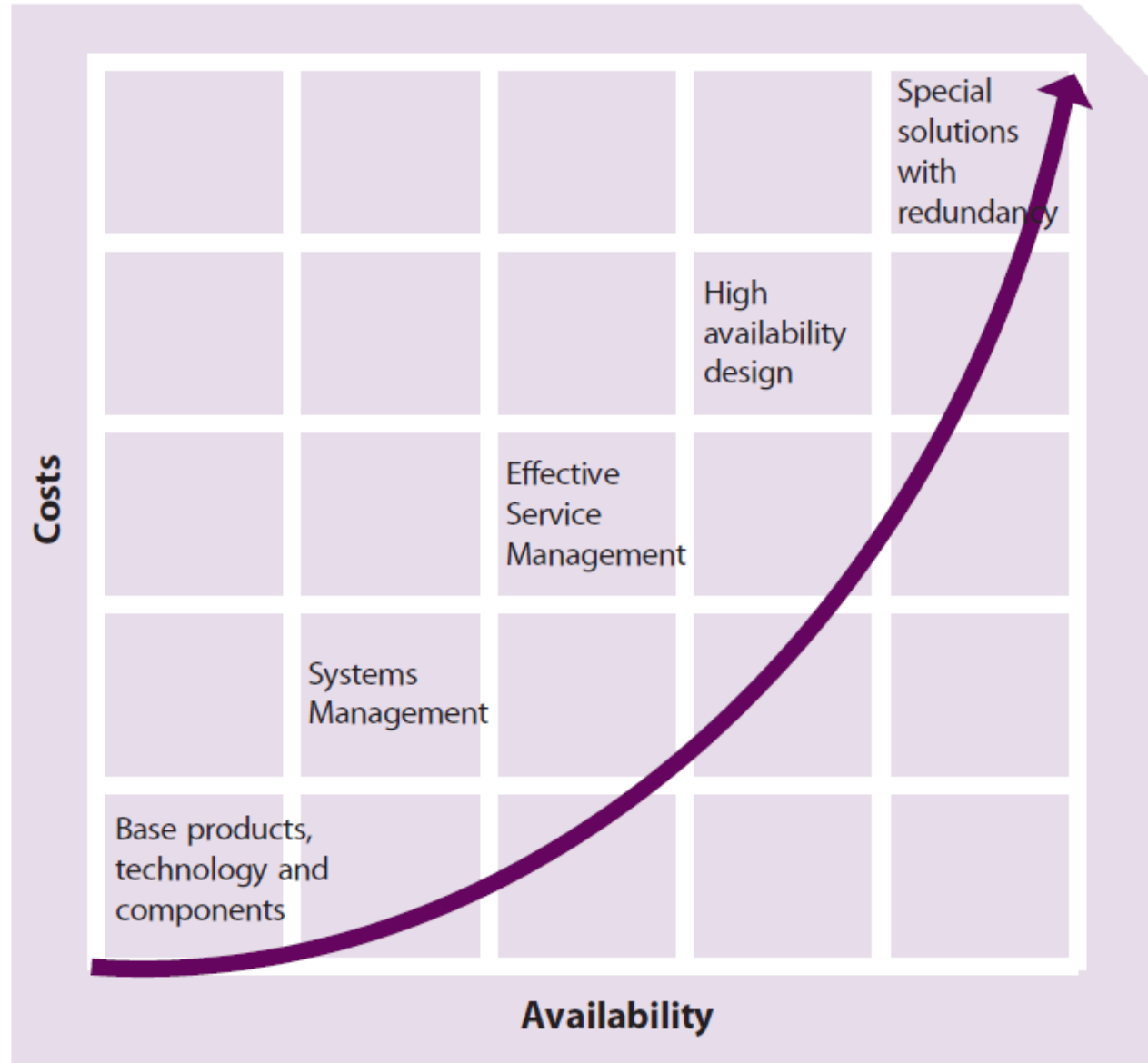
Availability vs. user perspective

The most important availability measurements are those that reflect and measure availability from the business and user perspective.

Same Availability of $A = 0.99998843$ (4 nines)



Availability vs. Overall Costs



Failure = Moment of Truth

Every failure is an important 'moment of truth' – an opportunity to make or break your reputation with the business.

Projected Service Outage (PSO)

A document that identifies the effect of planned changes, maintenance activities and test plans on agreed service levels.



IT Service Continuity Management

IT Service Continuity Management

The goal of ITSCM is to support the overall Business Continuity Management process by ensuring that the required IT technical and service facilities (including computer systems, networks, applications, data repositories, telecommunications, environment, technical support and Service Desk) can be resumed within required, and agreed, business timescales.

Business Continuity Management (BCM)

The **business process** responsible for managing risks that could seriously affect the business.

The process involves reducing risks to an acceptable level and planning for the recovery of business processes should a disruption to the business occur.

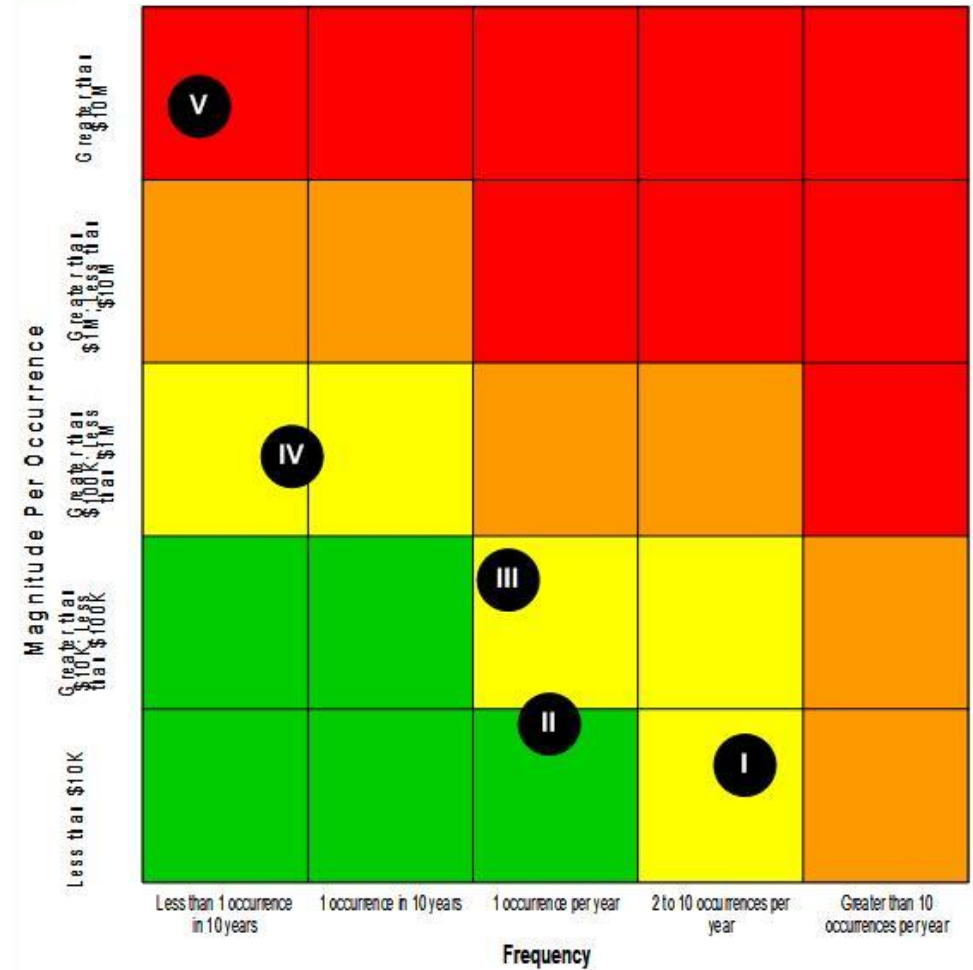
Business continuity management **sets the objectives, scope and requirements for IT service continuity management.**

Business Impact Analysis (BIA)

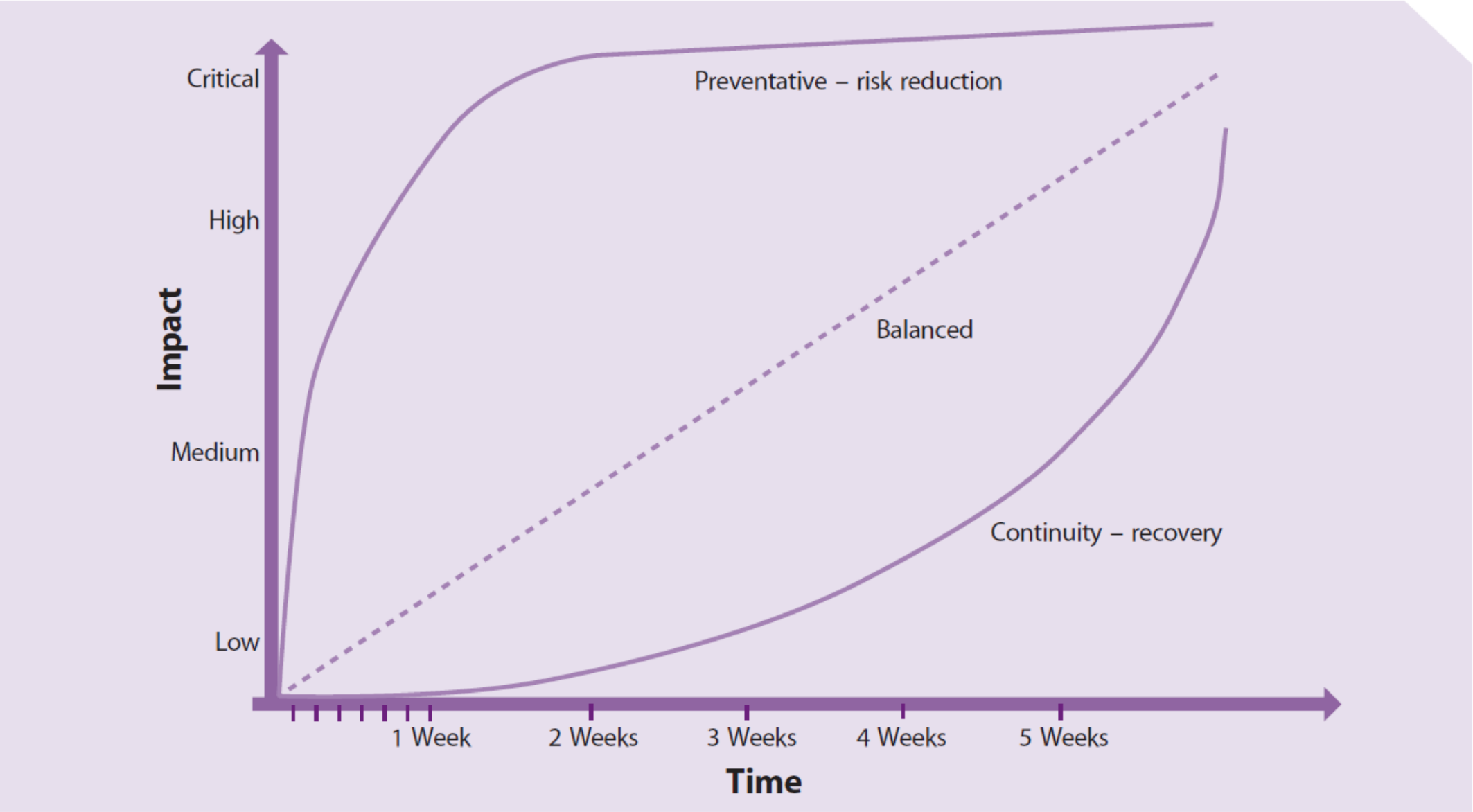
Business impact analysis is the activity in business continuity management that identifies vital business functions and their dependencies. These dependencies may include suppliers, people, other business processes, IT services etc. Business impact analysis defines the recovery requirements for IT services. These requirements include recovery time objectives, recovery point objectives and minimum service level targets for each IT service.

Risk Management Model

Risk Management Model		Probability		
		Low	Medium	High
Impact	Severe/Critical	Substantial management required	Must monitor and manage risks	Extensive management crucial
	Moderate	May accept risks but monitor them	Management effort useful	Management effort required
	Limited/Minor	Accept risks	Accept risks but monitor them	Monitor and manage risks



Business impacts



Outputs ITSCM

- A revised ITSCM policy and strategy
- A set of ITSCM plans, including all Crisis Management, Emergency Response Plans and Disaster Recovery
- Plans, together with a set of supporting plans and contracts with recovery service providers
- Business Impact Analysis exercises and reports, in conjunction with BCM and the business
- Risk Analysis and Management reviews and reports, in conjunction with the business, Availability
- An ITSCM testing schedule, ITSCM test scenarios, test reports and reviews.



Information Security Management

Information security management

The goal of the ISM process is to align IT security with business security and ensure that information security is effectively managed in all service and Service Management activities.

Is responsible for the availability, confidentiality and integrity of data.

Information Security Policy

- An overall Information Security Policy
- Use and misuse of IT assets policy
- An access control policy
- A password control policy
- An e-mail policy
- An internet policy
- An anti-virus policy
- An information and document classification policy
- A remote access policy
- Etc.



Supplier Management

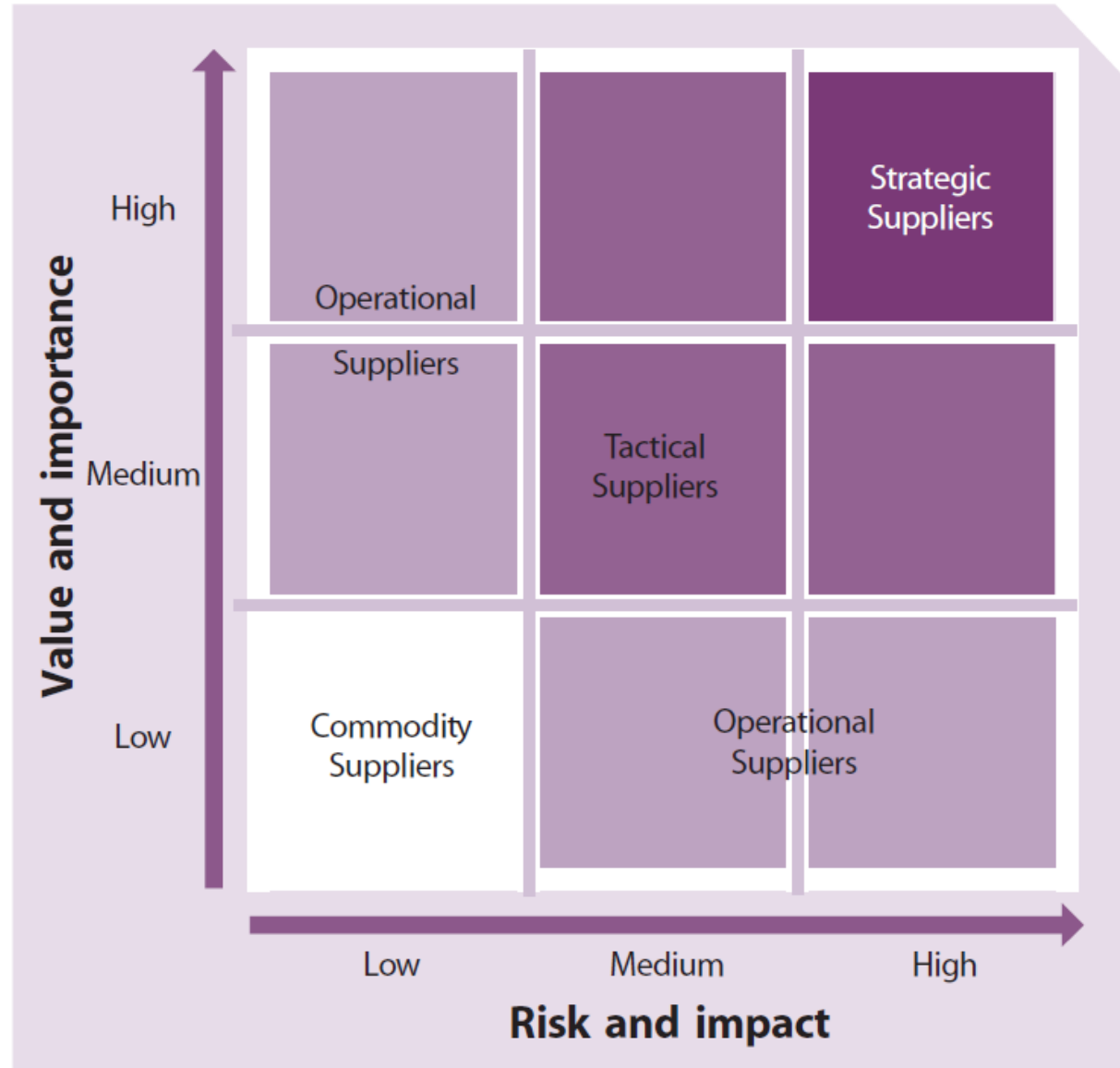
ITIL: Service Design

Supplier management

The goal of the Supplier Management process is to manage suppliers and the services they supply, to provide seamless quality of IT service to the business, ensuring value for money is obtained.

Is responsible for managing relationships with vendors.

Supplier categorization





Service Strategy

ITIL Core

7-Step Improvement Process



Event Management
Incident Management
Request Fulfilment
Problem Management
Access Management

Service Catalogue Management
Service Level Management
Capacity Management
Availability Management
IT Service Continuity Management
Information Security Management
Supplier Management

Service Desk
Technical Management
IT Operations Management
Application Management

Financial Management
Return on Investment
Service Portfolio Management
Demand Management

Transition planning and support
Change Management
Service asset and configuration management
Release and deployment management
Service validation and testing
Evaluation
Knowledge management

Service Strategies Value to the Business

Enabling the service provider to have a clear understanding of what levels of service will make their customers successful.

Enabling the service provider to respond quickly and effectively to changes in the business environment.

Support the creation of a portfolio of quantified services.

Stakeholders

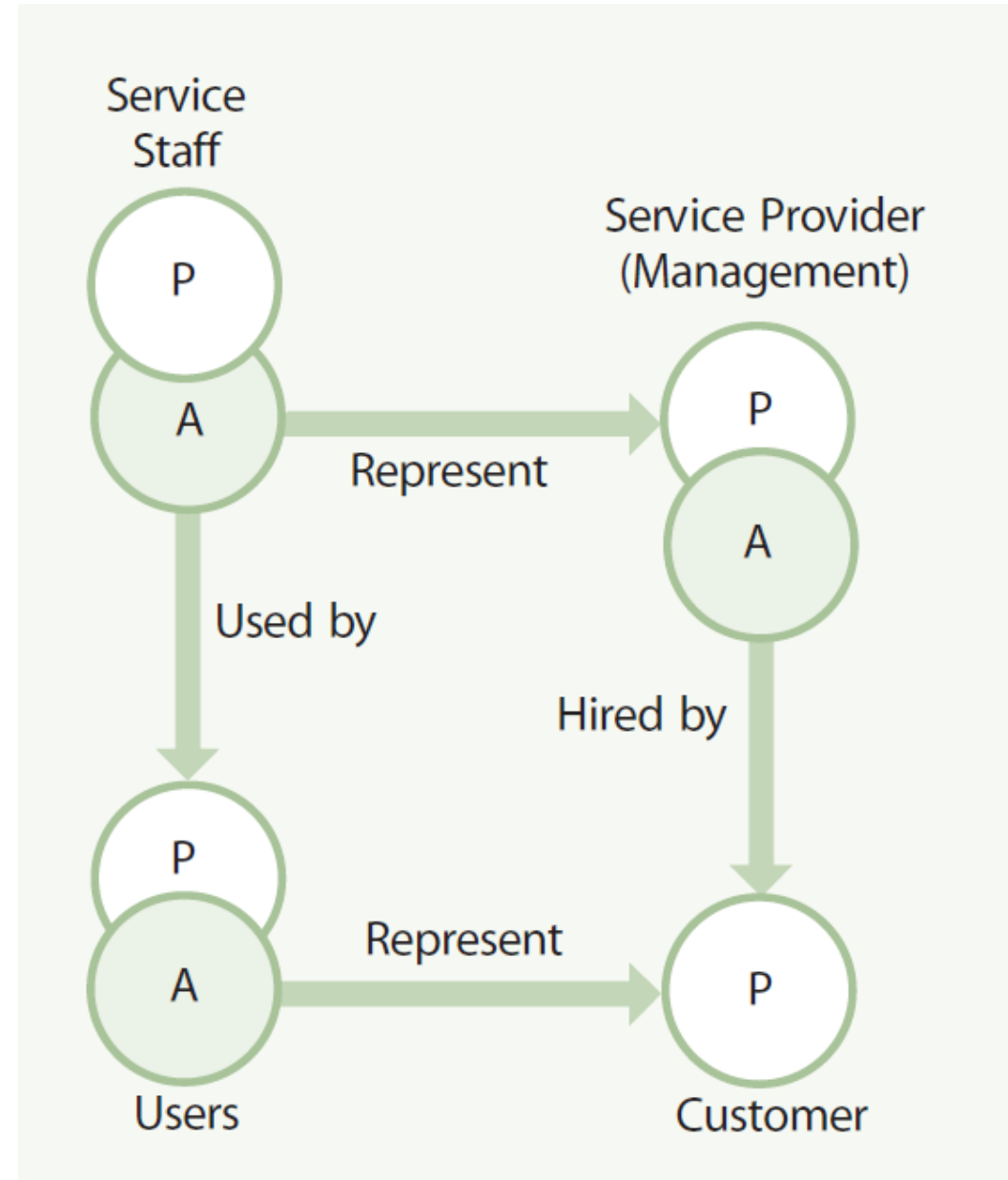
All people who have an interest in an Organization, Project, IT Service, etc. Stakeholders may be interested in the Activities, targets, Resources, or Deliverables.

Stakeholders may include Customers, Partners, employees, shareholders, owners, etc.

Stakeholders: Customer vs. User

Customer – pay (managers)

User – use (day-to-day)

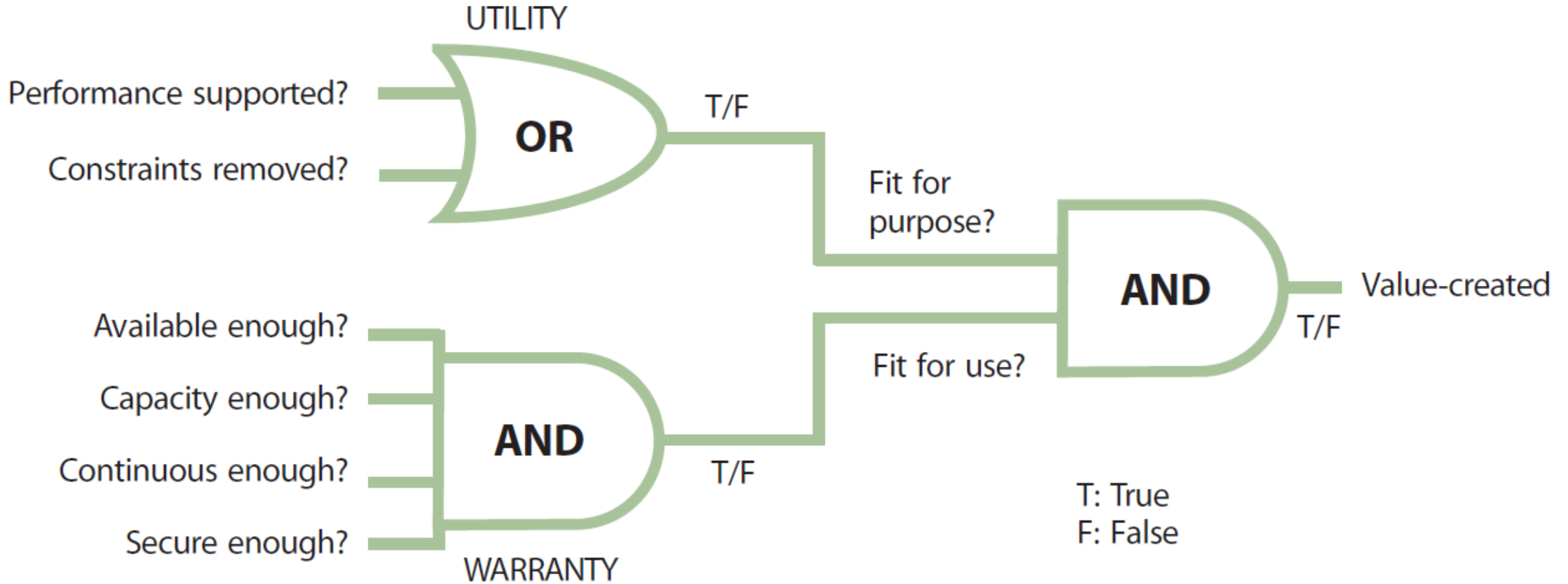


Value composition

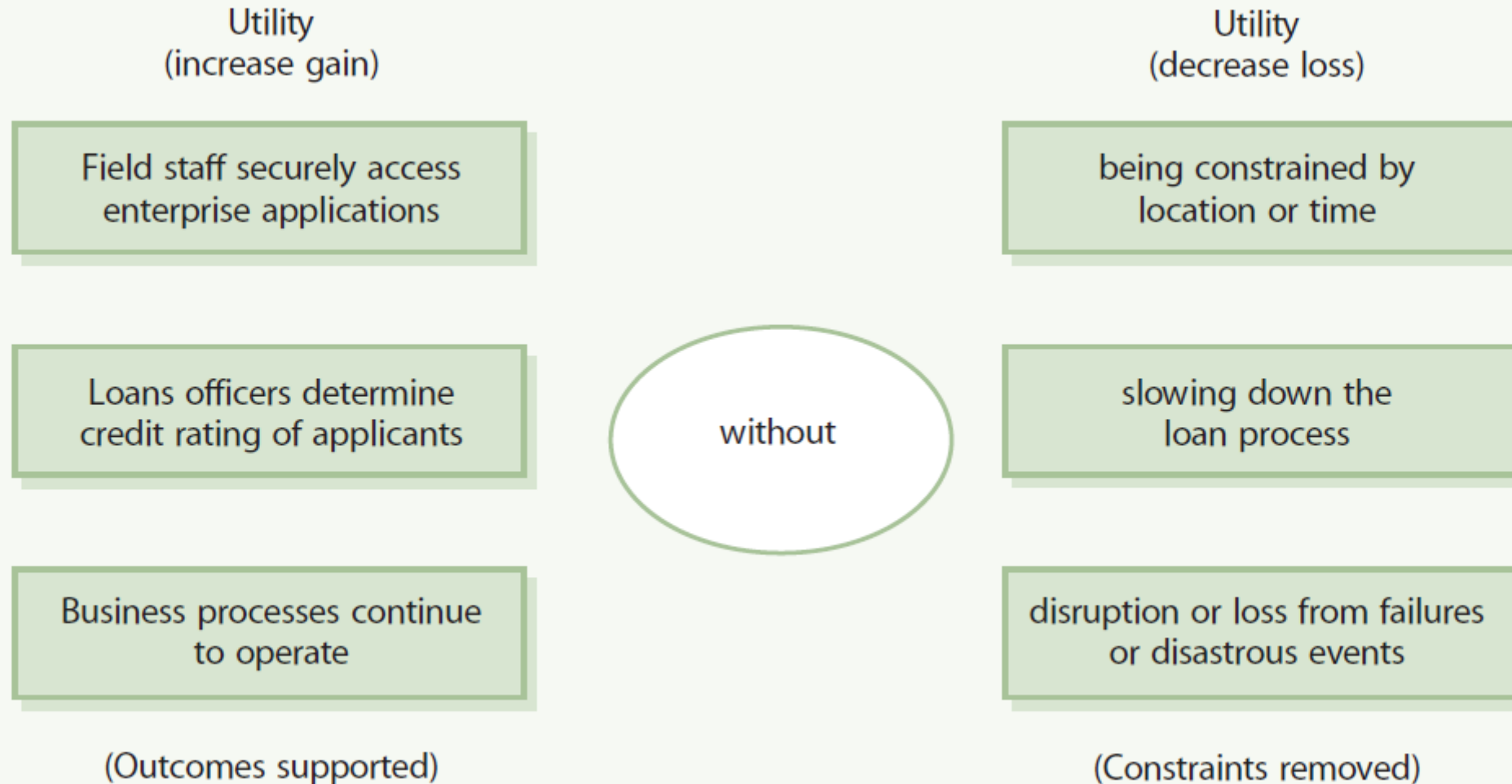
From the customer's perspective, value consists of two primary elements: **utility** or fitness for purpose and **warranty** or fitness for use.



Value Creation



Utility: outcomes / constraints



Service Provider

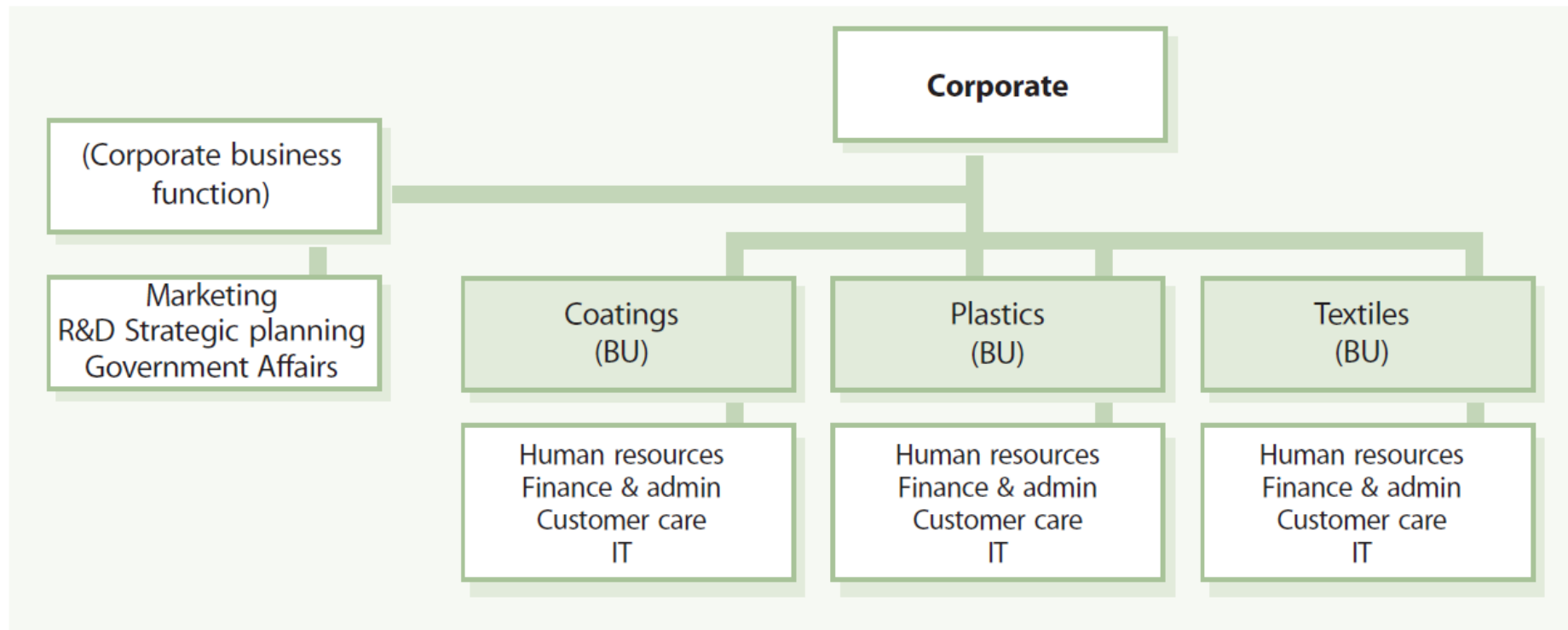
An organization supplying services to one or more **internal customers** or **external customers**.

Service provider is often used as an abbreviation for IT service provider.

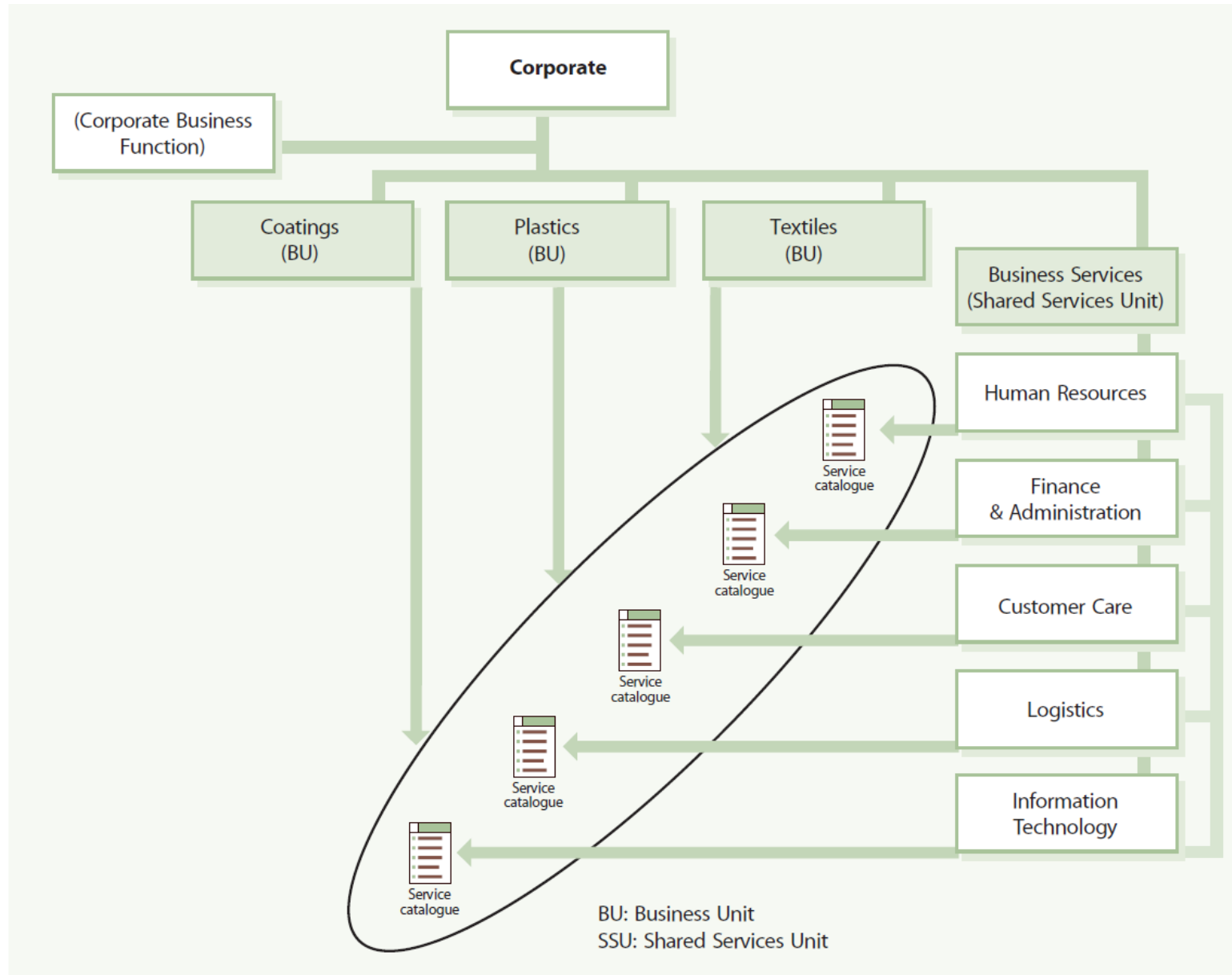
Service provider type:

- Type I – internal service provider
- Type II – shared services unit
- Type III – external service provider

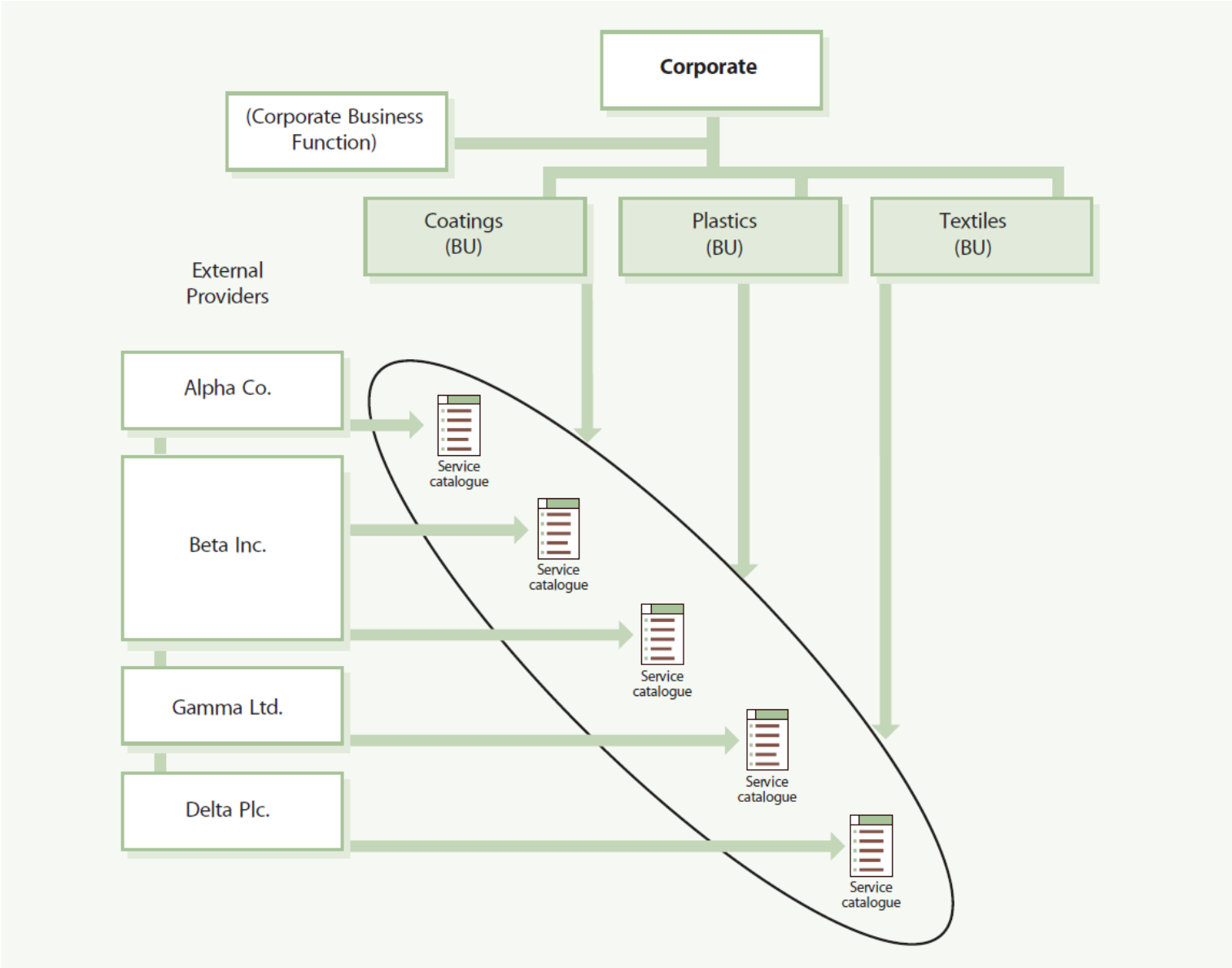
Internal service provider



Shared services unit



External service provider



Governance

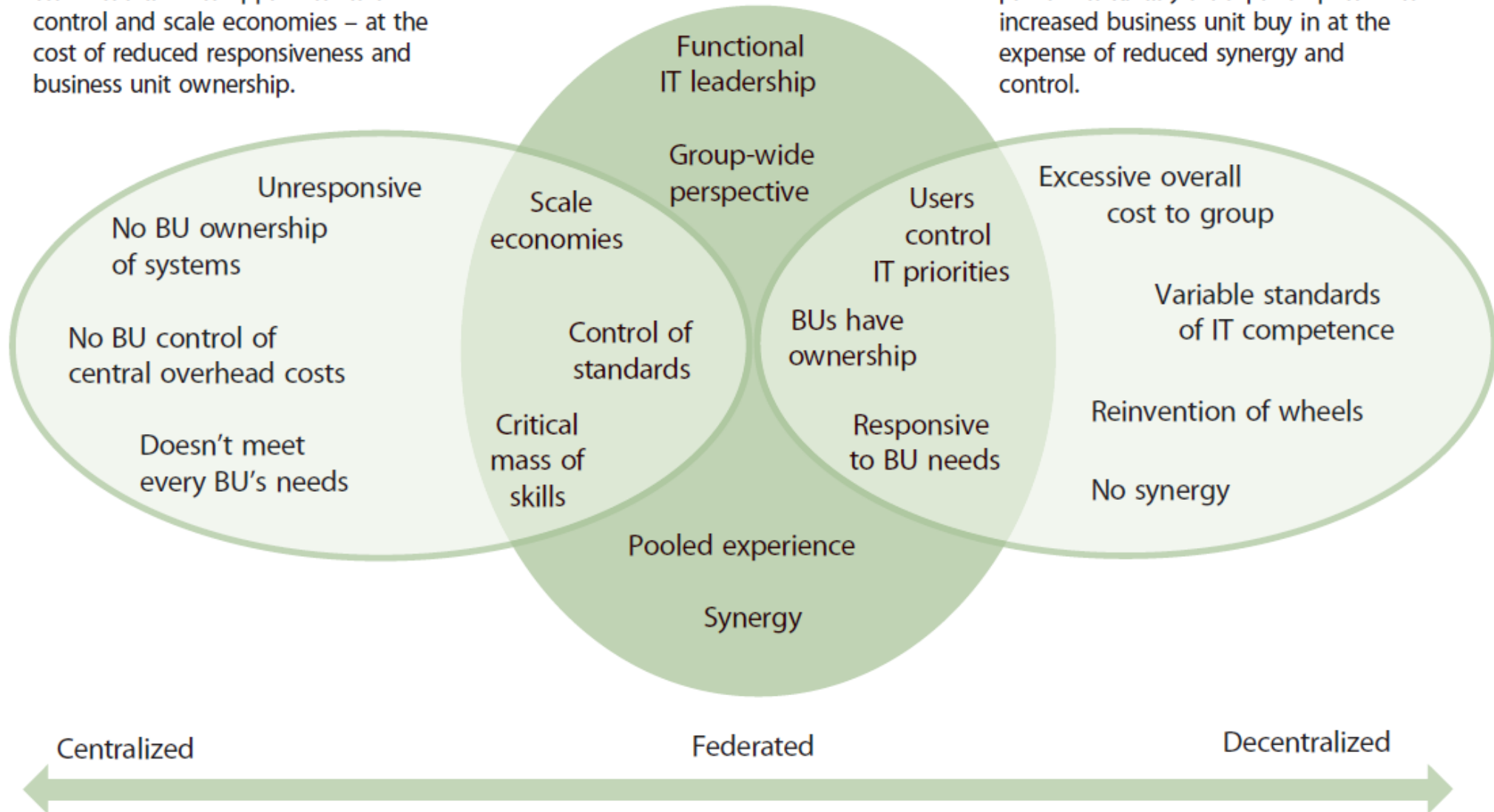
Ensuring that **Policies** and **Strategy** are actually implemented, and that required **Processes** are correctly followed.

Governance includes defining **Roles** and **responsibilities**, **measuring and reporting**, and **taking actions** to resolve any issues identified.

Centralized / Decentralized organization

The centralized IT approach offers control and scale economies – at the cost of reduced responsiveness and business unit ownership.

In contrast, decentralized approaches provide flexibility for rapid response and increased business unit buy in at the expense of reduced synergy and control.



Business Relationship Management

The process responsible for maintaining a positive relationship with customers.

Business relationship management identifies customer needs and ensures that the service provider is able to meet these needs with an appropriate catalogue of services.

This process has strong links with service level management.

Understanding the customer's business

Pick a customer and carefully analyse their business to understand the ecosystem in which they operate.

- What conditions make the customer's business grow?
- How do your services create or sustain such conditions?
- What challenges and opportunities does their business face?
- How do your services help your customer address them?



Financial Management

ITIL: Service Strategy

Výchozí stav

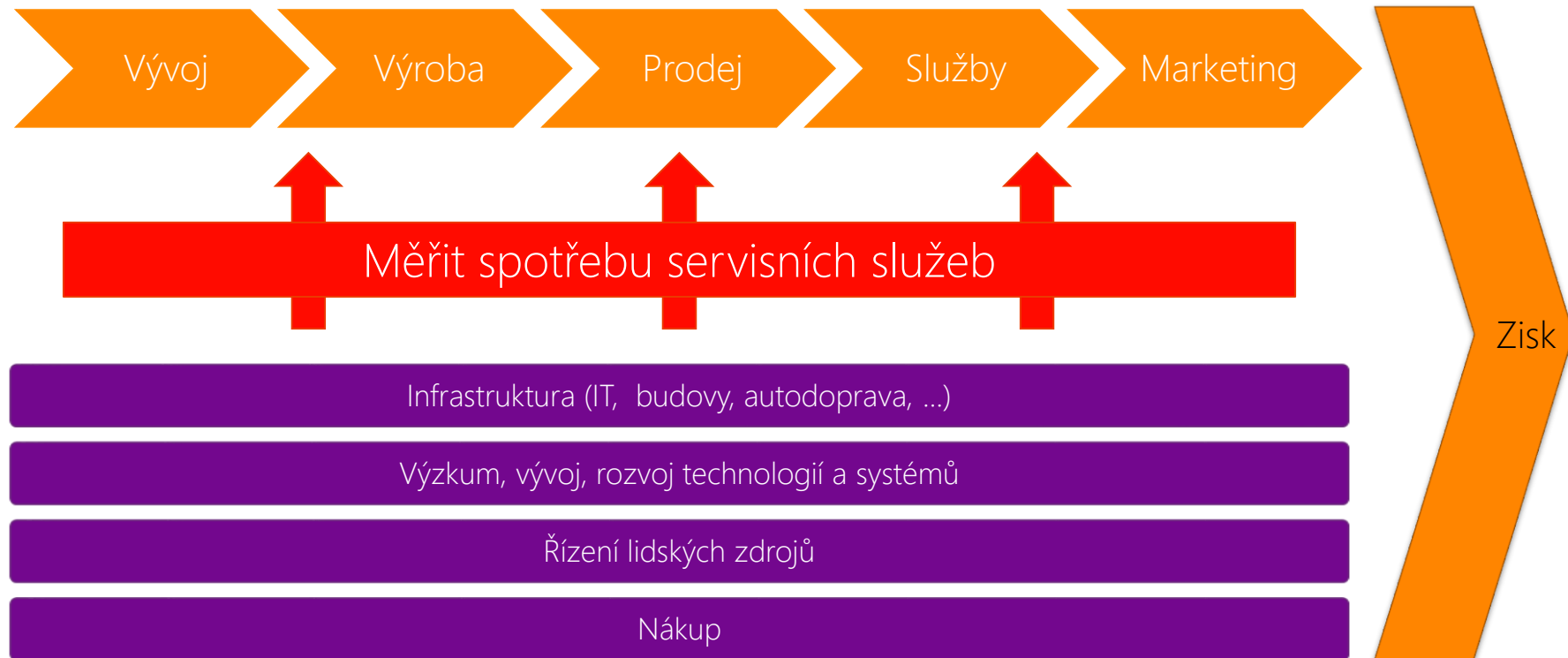
IT manažer (CIO), CEO a CFO řeší:

- Jak stanovit IT rozpočet?
- Jak řešit jeho správné čerpání?
- Jít do outsourcingu?
- Jak najít optimální úroveň kvality?

Společný záměr:

- Neplýtvat penězi a čerpat IT rozpočet transparentně.

Identifikace problému



Cost Types

Cost categories such as hardware, software, labour, administration, etc.

These attributes assist with reporting and analysing demand and usage of **services** and their components in commonly used financial terms.

Capital / Operational costs

Classification addresses different accounting methodologies that are required by the business and regulatory agencies.

Direct / Indirect costs

This designation determines whether a cost will be assigned directly or indirectly to a consumer or service.

Direct costs are charged directly to a service since it is the only consumer of the expense.

Indirect or 'shared' costs are allocated across multiple services since each service may consume a portion of the expense.

Fixed / Variable costs

This segregation of costs is based on contractual commitments of time or price.

The strategic issue around this classification is that the business should seek to optimize fixed service costs and minimize the variable in order to maximize predictability and stability.

Traditional Chart of Accounts

Traditional Chart of Accounts	
Applying Invoice to Chart of Accounts	
Salary	60,000
Server Maintenance	25,000
Hardware Depreciation	15,000
TOTAL	100,000

Valuing the Collaboration Service

Sample Breakdown of Service Cost by Accounting Characteristic

Collaboration Service Total Cost Breakdown by Characteristics

Hardware	150,000		
Software	25,000	225,000	Traditional cost accounting
Labour	50,000		
Operational	180,000		
Capital	45,000	225,000	Capital structure
Direct	51,000		
Indirect	55,000	225,000	Benefit structure
Fixed	100,000		
Variable	125,000	225,000	Variability of costs
Subtotal Expenditure		225,000	



Collaboration Service Potential Value Add

Utility Optimizations			Est. value of service improvement
Warranty Enhancement	10,000		Est. value of service improvement
Subtotal Value Add		10,000	
 Subtotal:		 225,000	 Current Period Funding Base
 Anticipated Peak Demand Variance		 20%	
Increase (Decrease)		47,000	Additional Funding Required
		282,000	
Total Service Valuation (future)		282,000	Future Funding Need

Chargeback models

Notional charging – „twobook“ model

Tiered subscription – gold, silver and bronze levels

Metered usage – real-time usage (hours, days or weeks)

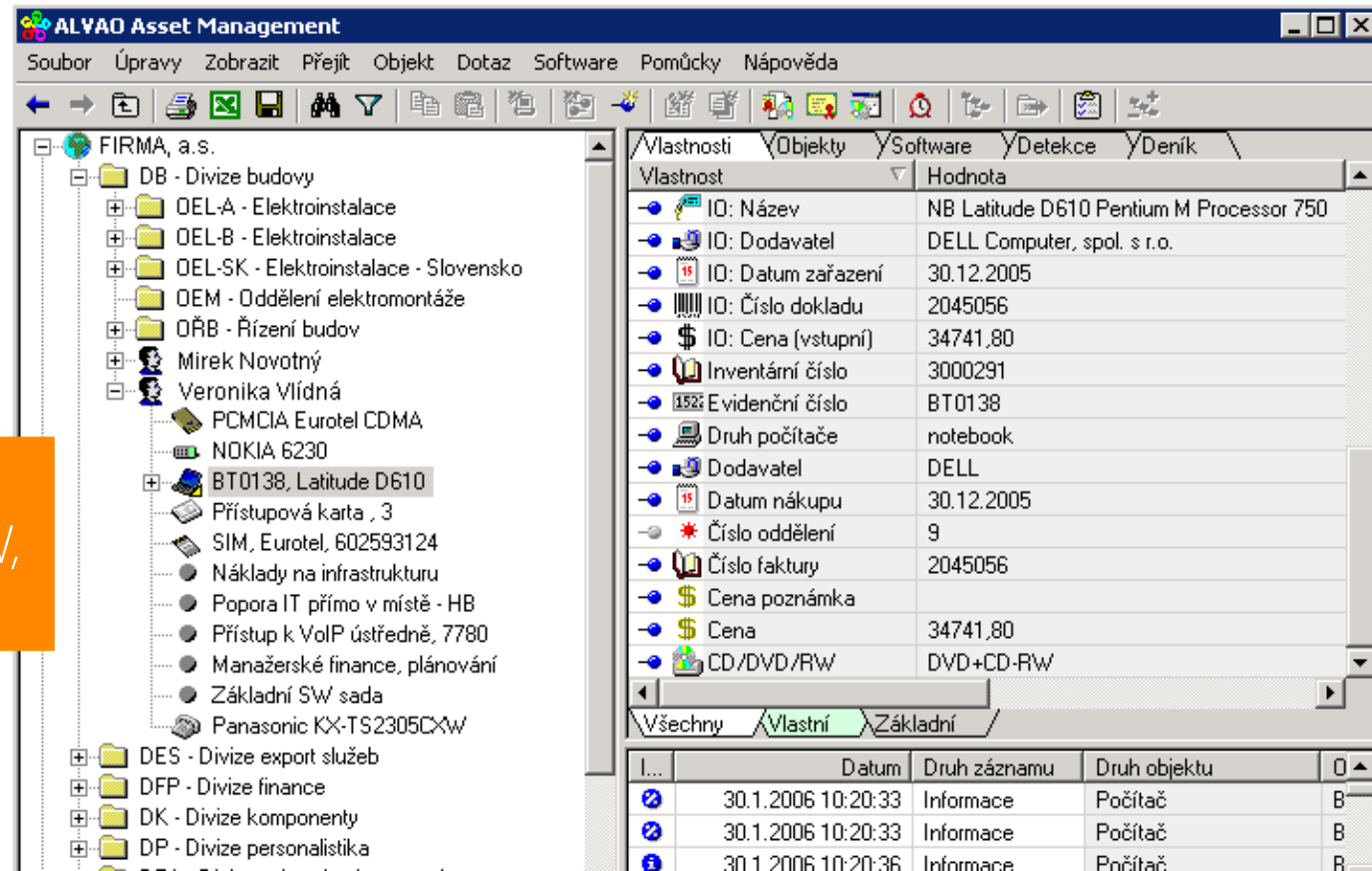
Direct Plus – service are charged + shared indirect costs (costs attributed directly to a service)

Fixed or user cost – by an agreed denominator such as number of users

1. Evidence IT majetku

IT začalo vést přesnou evidenci IT majetku na konkrétní zaměstnance

Stanovení měsíční ceny za veškerý HW, SW



ALVAO Asset Management

Soubor Úpravy Zobrazit Přejít Objekt Dotaz Software Pomůcky nápověda

FIRMA, a.s.

- DB - Divize budovy
 - DEL-A - Elektroinstalace
 - DEL-B - Elektroinstalace
 - DEL-SK - Elektroinstalace - Slovensko
 - DEM - Oddělení elektromontáže
 - ORB - Řízení budov
 - Mirek Novotný
 - Veronika Vlídna
 - PCMCIA Eurotel CDMA
 - NOKIA 6230
 - BT0138, Latitude D610**
 - Přístupová karta , 3
 - SIM, Eurotel, 602593124
 - Náklady na infrastrukturu
 - Popora IT přímo v místě - HB
 - Přístup k VoIP ústředně, 7780
 - Manažerské finance, plánování
 - Základní SW sada
 - Panasonic KX-TS2305CXW
- DES - Divize export služeb
- DFF - Divize finance
- DK - Divize komponenty
- DP - Divize personalistika

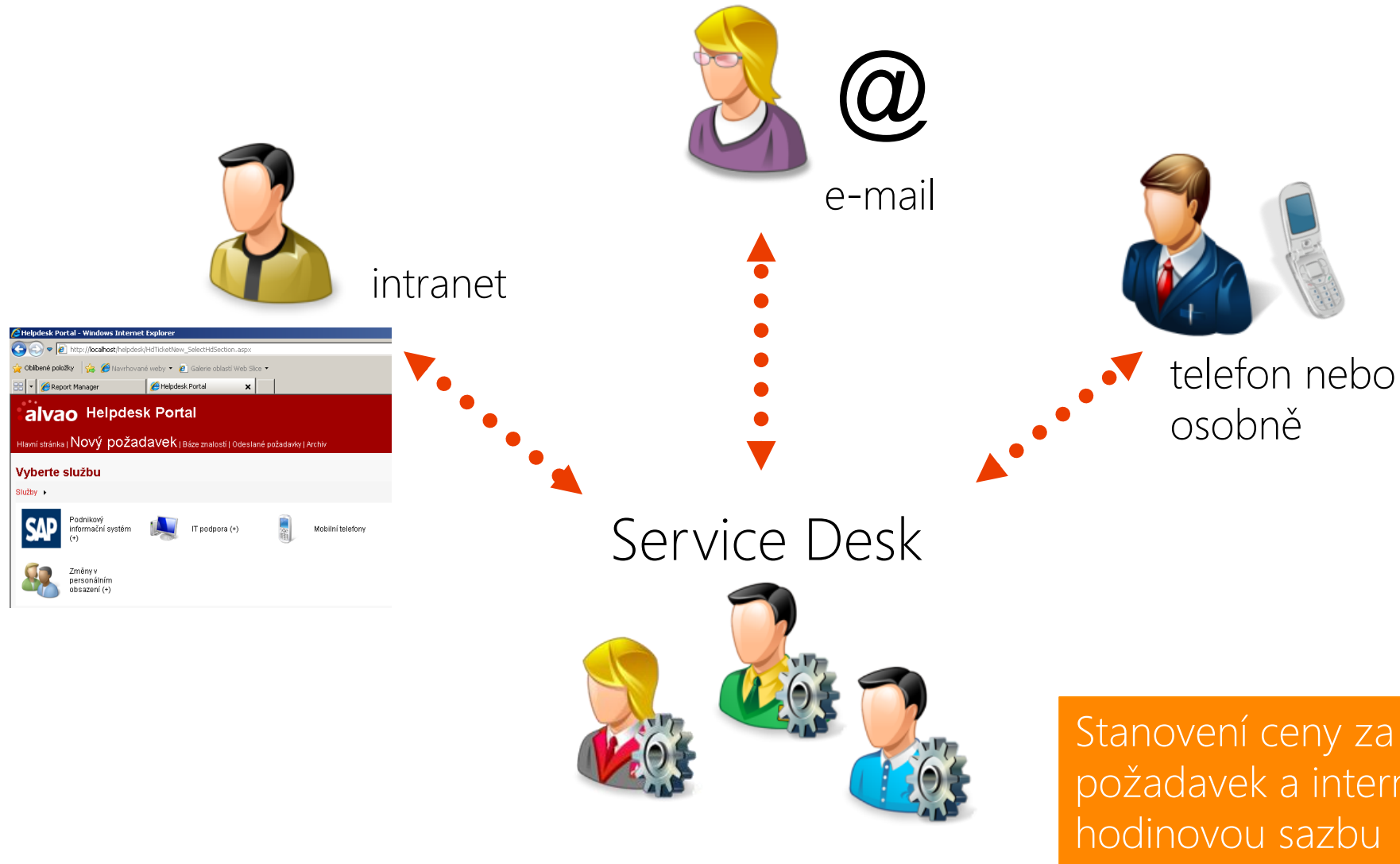
Vlastnosti Objekty Software Detekce Deník

Vlastnost	Hodnota
ID: Název	NB Latitude D610 Pentium M Processor 750
ID: Dodavatel	DELL Computer, spol. s r.o.
ID: Datum zařazení	30.12.2005
ID: Číslo dokladu	2045056
ID: Cena (vstupní)	34741,80
Inventární číslo	3000291
Evidenční číslo	BT0138
Druh počítače	notebook
Dodavatel	DELL
Datum nákupu	30.12.2005
Číslo oddělení	9
Číslo faktury	2045056
Cena poznámka	
Cena	34741,80
CD/DVD/RW	DVD+CD-RW

Všechny Vlastní Základní

...	Datum	Druh záznamu	Druh objektu	
<input checked="" type="checkbox"/>	30.1.2006 10:20:33	Informace	Počítač	B
<input checked="" type="checkbox"/>	30.1.2006 10:20:33	Informace	Počítač	B
<input checked="" type="checkbox"/>	30.1.2006 10:20:36	Informace	Počítač	B

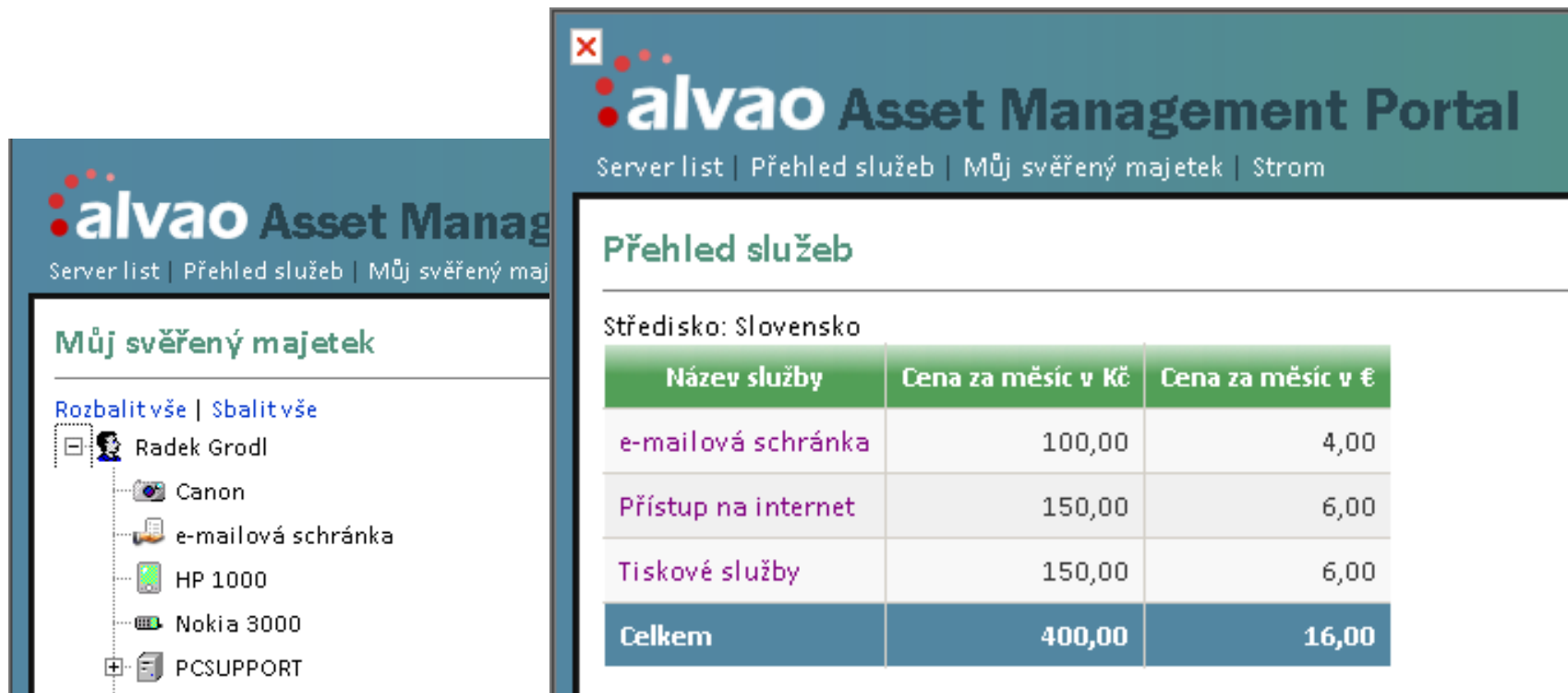
2. Evidence poskytování služeb



Ukázání IT nákladů

Manažeři vidí kolik IT zdrojů spotřebují jeho podřízení

Vnitrofakturace IT nákladů



The image shows two overlapping screenshots of the 'alvao Asset Management Portal'. The top screenshot displays the 'Přehled služeb' (Service Overview) section, which includes a table of services and their costs. The bottom screenshot shows the 'Můj svěřený majetek' (My entrusted assets) section, listing various IT assets under a user named 'Radek Grodl'.

alvao Asset Management Portal
Server list | Přehled služeb | Můj svěřený majetek | Strom

Přehled služeb

Středisko: Slovensko

Název služby	Cena za měsíc v Kč	Cena za měsíc v €
e-mailová schránka	100,00	4,00
Přístup na internet	150,00	6,00
Tiskové služby	150,00	6,00
Celkem	400,00	16,00

alvao Asset Management Portal
Server list | Přehled služeb | Můj svěřený majetek | Strom

Můj svěřený majetek

Rozbalit vše | Sbalit vše

Radek Grodl

- Canon
- e-mailová schránka
- HP 1000
- Nokia 3000
- PCSUPPORT

Celkový
přehled

Vyhledání
útvary,
člověka

Fixní
náklady

Variabilní
náklady

Pevné
období

Novinky

Standards,
normy ...

Souhrn Rychlé hledání Podrobné statistiky Prostředky IT

Účet uživatele

Evidence IT

Texty a přílohy

Administrace

Odhlášení

Vyhledat

Uživatel:

Útvar:

Zobrazit

Souhrnné informace

Fixní náklady

Typ	Prostředek IT	Počet	Cena kus	Cena
Hardware	Mobil (SIMkarta)	1	595.00	595.00 Kč
Hardware	PC	2	28,400.00	56,800.00 Kč
Hardware	Vypalovačky - NERO	1	917.00	917.00 Kč
Ostatní	Vzdálený přístup - Callback	1	0.00	0.00 Kč
				58,312.00 Kč

Variabilní náklady

Služba	Počet	Celkem	Měsíčné
Disky	433,280	630.60 Kč	630.60 Kč
Email	5,678	331.30 Kč	331.30 Kč
Internet	238,890	24,682.68 Kč	24,682.68 Kč
Pobočky	7,832,680.00	497.63 Kč	497.63 Kč
Telefon	02:38:47	1,518.94 Kč	1,518.94 Kč
Tisk	91,713,584.00 kb	256.00 Kč	256.00 Kč
		27,917.15 Kč	27,917.15 Kč

Náklady za období od 25.03.2007 do 25.09.2007.

Vítáme Vás v aplikaci [...](#), která má za úkol sledovat používání informačních prostředků IIS.
Pokud některý z uvedených údajů nesouhlasí, prosím kontaktujte [...](#).

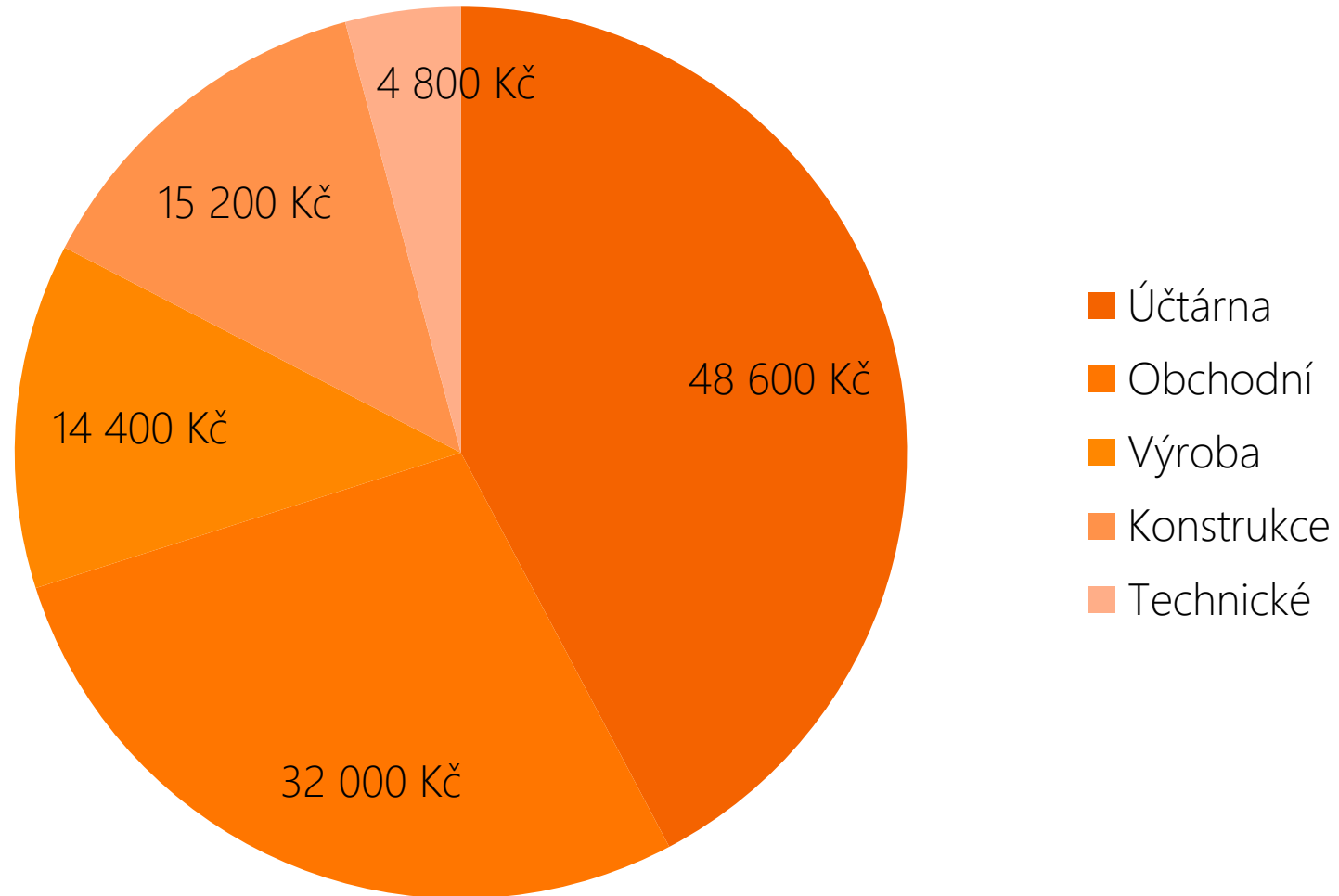
Poslední novinky

23.08.2007 [text](#)

Užitečné odkazy

- [Test 2](#) (15kB)
- [html](#) (0kB)
- [txt](#) (0kB)
- [Poznamka](#) (82kB)

Náklady za IT služby



Rozpad IT nákladů



Přínosy

Začala fungovat tržní samoregulace

- Uvážlivé čerpání služeb
- Vracení IT majetku

Zlepšily se IT služby

- Narovnal se vztah: zákazník – dodavatel
- Pozitivní zpětná vazba z průzkumu spokojenosti

Doporučení na závěr

Šetřete tím, že nastavíte uvnitř společnosti zdravou tržní atmosféru a aktivujete tak autoregulační systém

Začněte jednoduše ukazováním spotřeby

Nezabývejte se detaily, důležitý je princip

Automatizujte systém, aby vnitřní fakturace byla co nejjednodušší



Return on Investment

ITIL: Service Strategy

Return on Investment (ROI)

A measurement of the expected benefit of an investment. In the simplest sense, it is the net profit of an investment divided by the net worth of the assets invested.

When dealing with financial officers, ROI most likely means ROIC (Return on Invested Capital), a measure of business performance. This is not the case here. In service management, ROI is used as a measure of the ability to use assets to generate additional value.

Value On Investment (VOI)

A measurement of the expected benefit of an investment. Value on investment considers both financial and intangible benefits.

The extra value created by establishment of benefits that include non-monetary or long-term outcomes. ROI is a subcomponent of VOI.

Internal Rate of Return (IRR)

A technique used to help make decisions about capital expenditure. It calculates a figure that allows two or more alternative investments to be compared. A larger internal rate of return indicates a better investment.

Net Present Value (NPV)

A technique used to help make decisions about capital expenditure. It compares cash inflows with cash outflows. Positive net present value indicates that an investment is worthwhile.

Total Cost of Ownership (TCO)

A methodology used to help make investment decisions. TCO assesses the full Lifecycle cost of owning a Configuration Item, not just the initial cost or purchase price.

ROI - NPV, IRR, and Payback

	Project A	Project B	Project C
Initial Investment	(\$40,000)	(\$40,000)	(\$200,000)
Projected Cash Flow			
Year 1	\$5,000	\$20,000	\$55,000
Year 2	\$10,000	\$25,000	\$55,000
Year 3	\$15,000	\$15,000	\$55,000
Year 4	\$25,000	\$10,000	\$55,000
Year 5	\$20,000	\$5,000	\$55,000
Total Projected Cash Flow	\$75,000	\$75,000	\$275,000
IRR	20%	33%	12%
NPV (at 5%)	\$63,028	\$66,826	\$238,121
Payback Period (Years)	3.40	2.33	3.64
ROI (NPV - Investment)	\$23,028	\$26,826	\$38,121



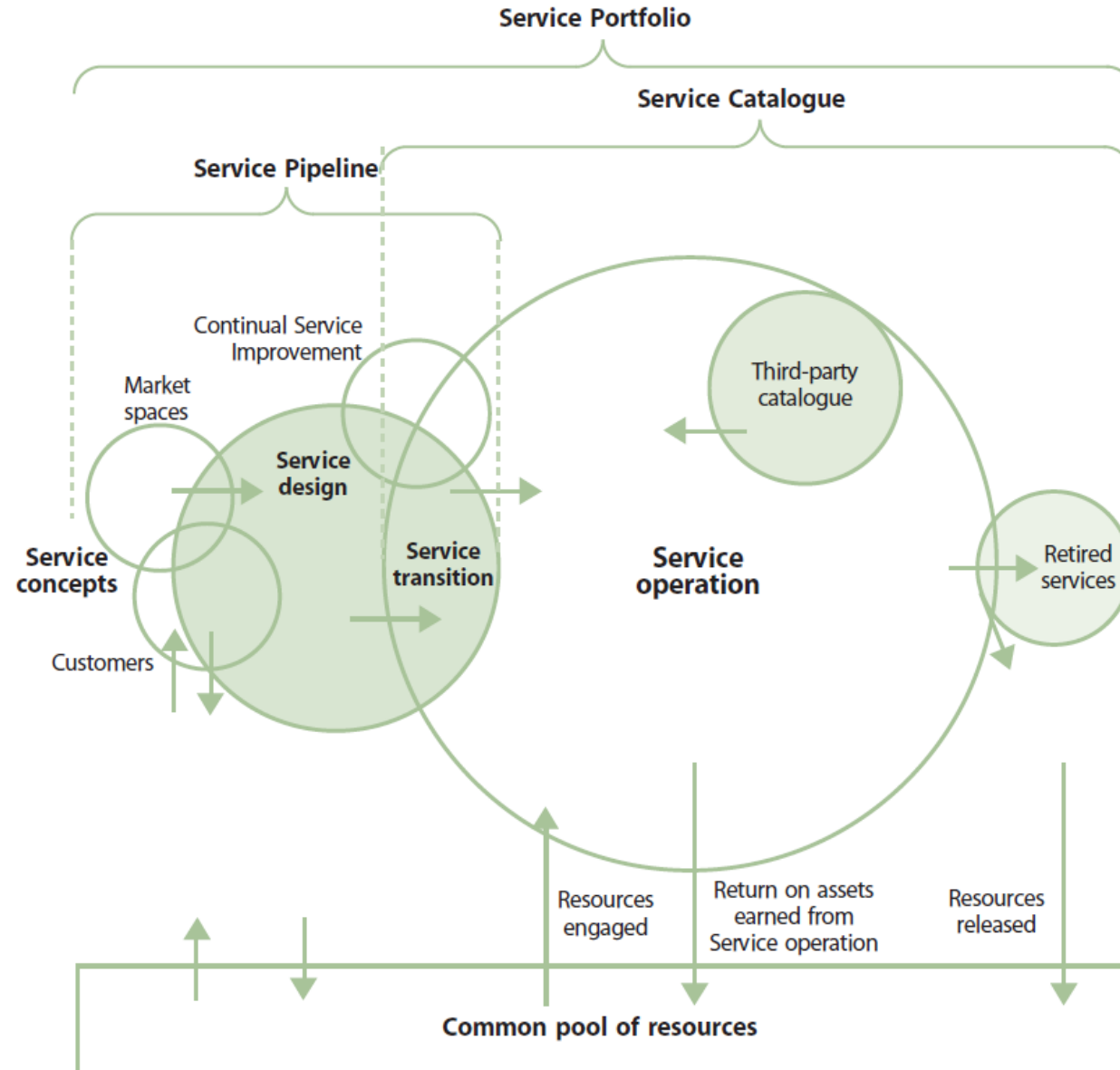
Service Portfolio Management

ITIL: Service Strategy

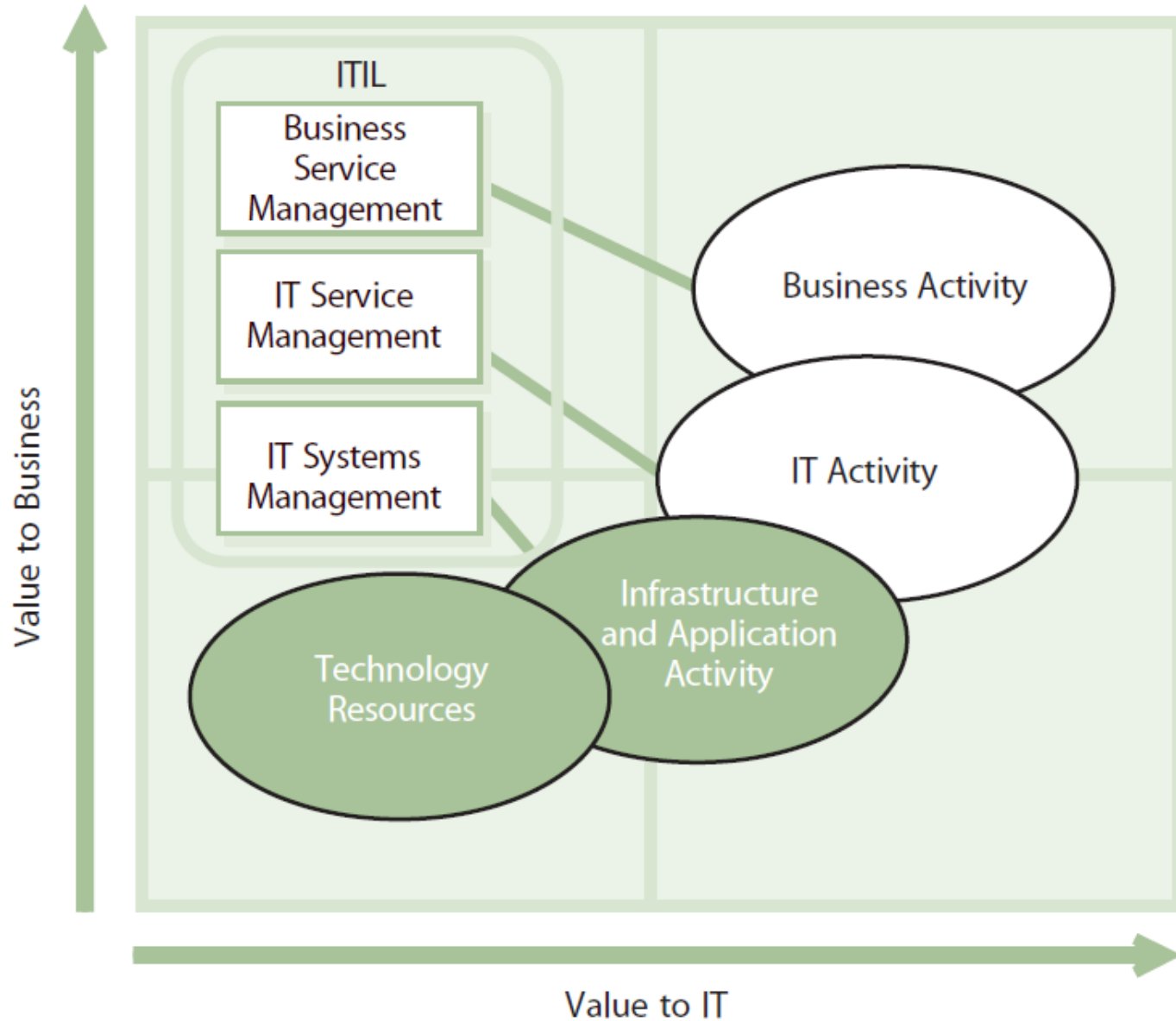
Service Portfolio Management (SPM)

The process responsible for managing the service portfolio. Service portfolio management ensures that the **service provider** has the **right mix of services** to meet **required business outcomes** at an appropriate level of investment. Service portfolio management considers services in terms of the **business value** that they provide.

Service Pipeline and Service Catalogue



IT management continuum



Services investments

Services investments are split between three strategic categories:

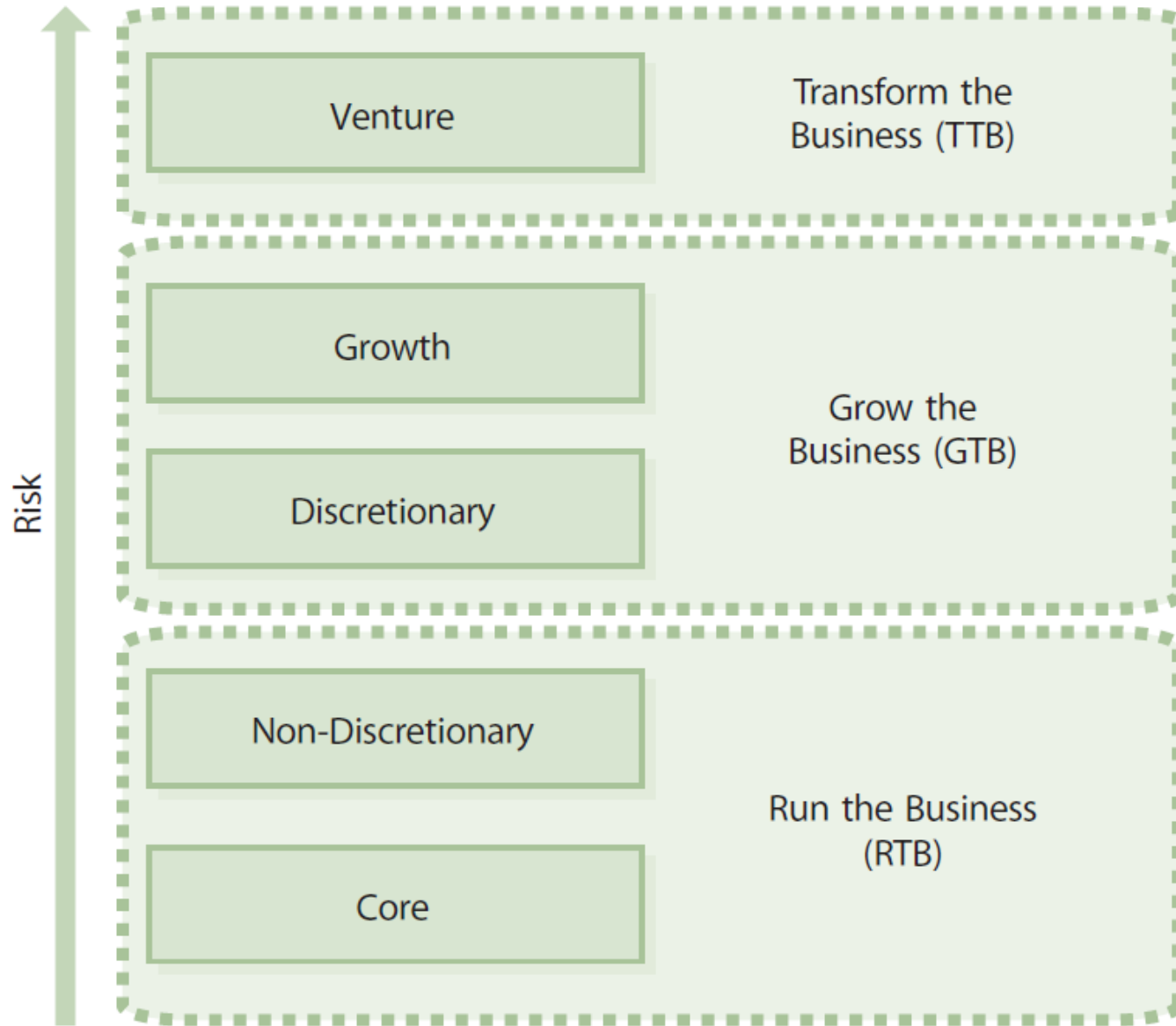
- **Run the business (RTB)** – RTB investments are centred on maintaining service operations
- **Grow the business (GTB)** – GTB investments are intended to grow the organization's scope of services
- **Transform the business (TTB)** – TTB investments are moves into new market spaces

Investment categories

The investment categories are further divided into budget allocations:

- **Venture** – create services in a new market space.
- **Growth** – create new services in existing market space.
- **Discretionary** – provide enhancements to existing services.
- **Non-discretionary** – maintain existing services
- **Core** – maintain business critical services

Investment categories - budget





Demand Management

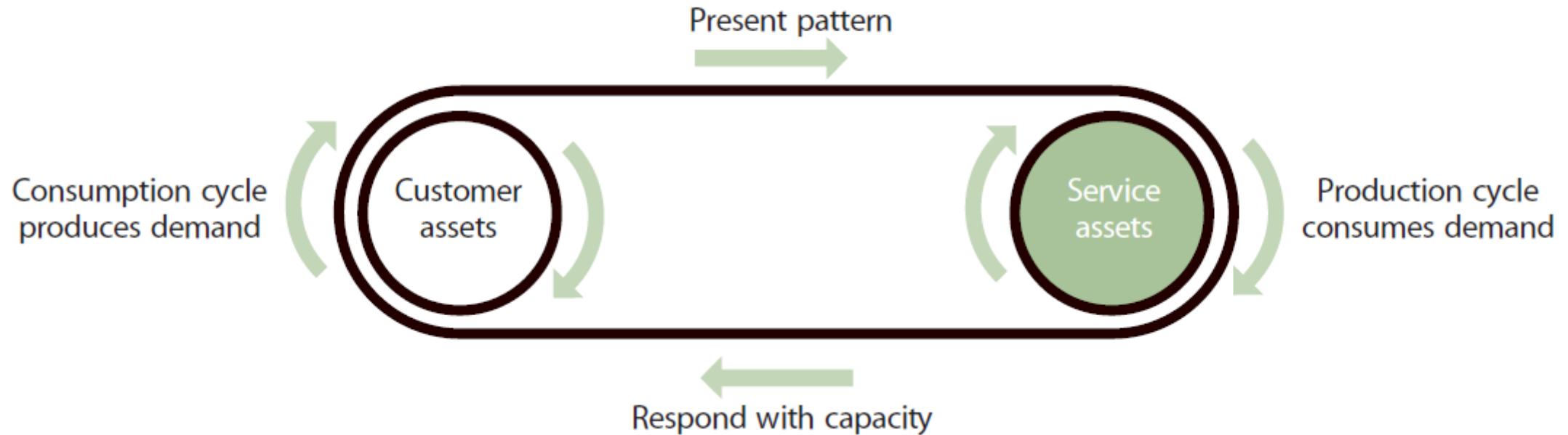
ITIL: Service Strategy

Demand Management

Demand Management is a critical aspect of service management. Poorly managed demand is a source of risk for service providers because of uncertainty in demand.

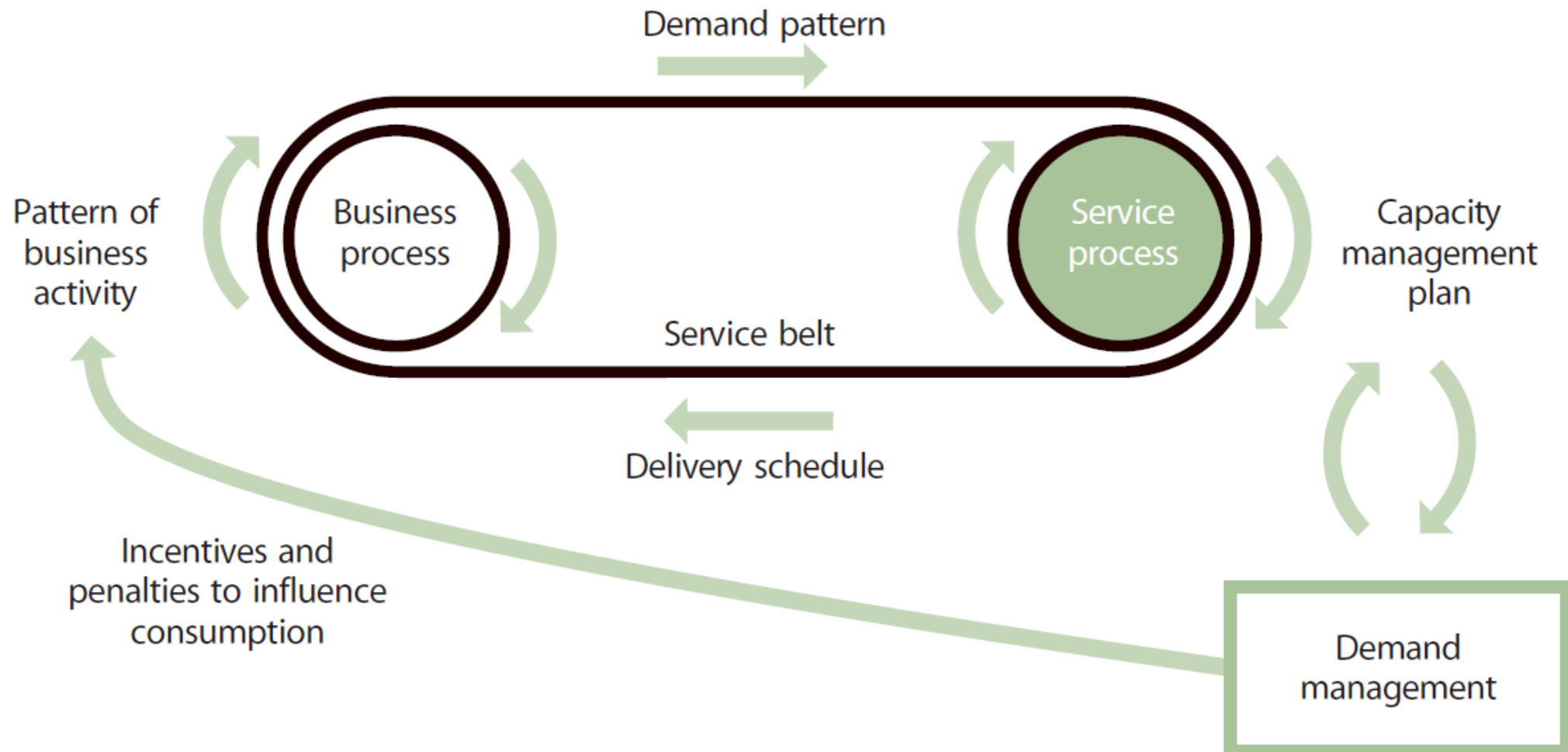
Excess capacity generates cost without creating value that provides a basis for cost recovery. Customers are reluctant to pay for idle capacity unless it has value for them.

Tight coupling between demand and capacity



Pattern of Business Activity (PBA)

Business activity influences patterns of demand for services

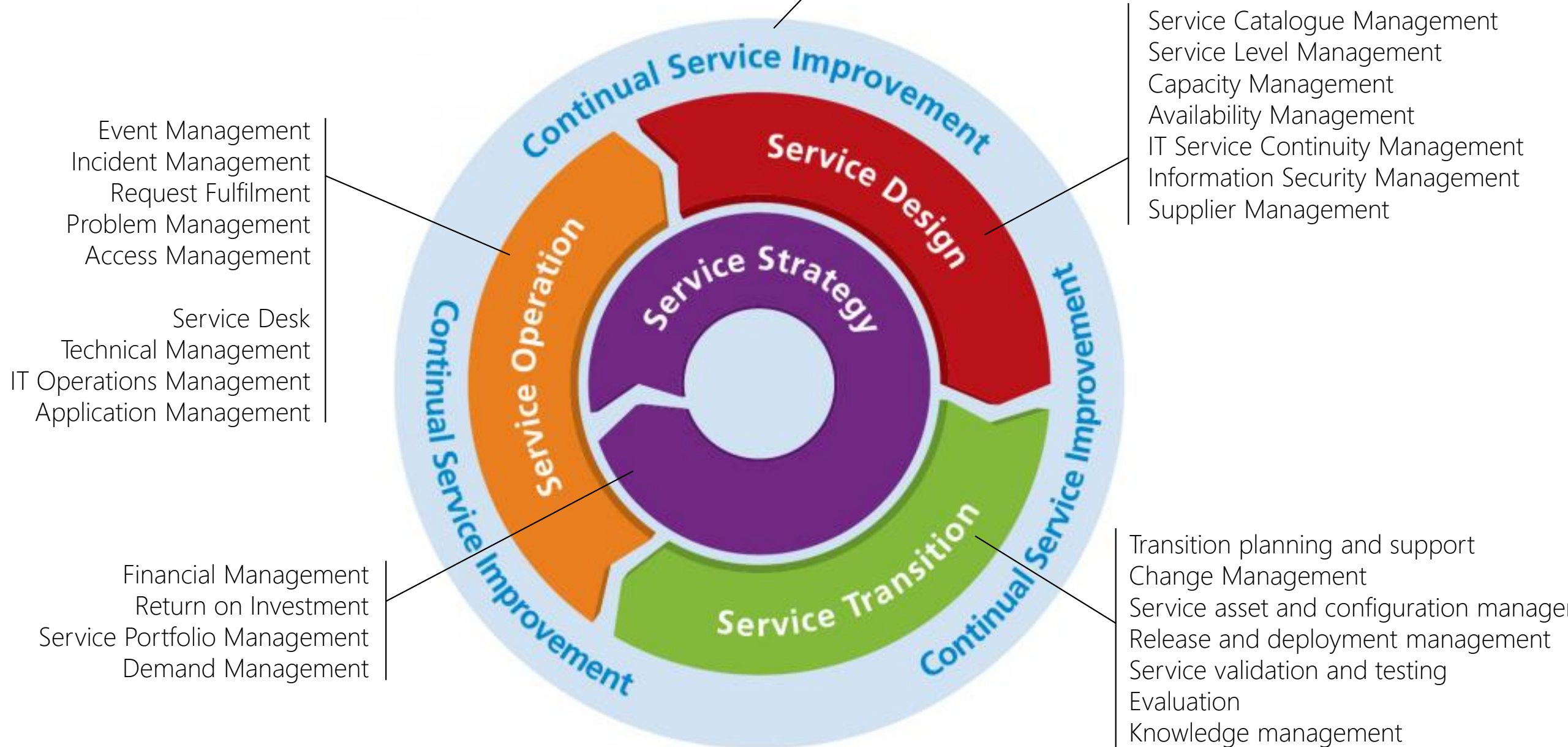




Continual Service Improvement

ITIL Core

7-Step Improvement Process



Continual Service Improvement (CSI)

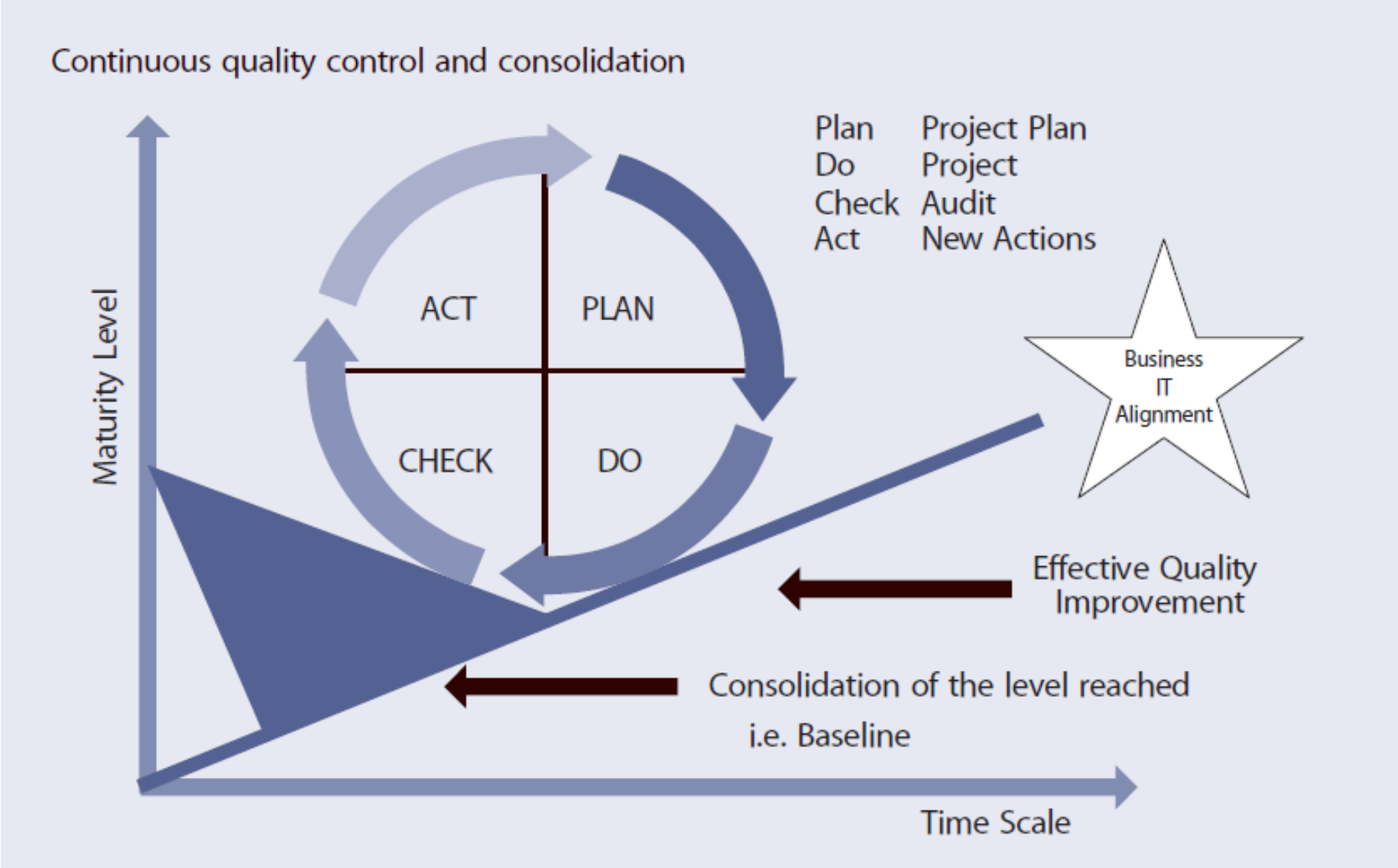
The primary purpose of CSI is to continually align and realign IT services to the changing business needs by identifying and implementing improvements to IT services that support business processes. These improvement activities support the lifecycle approach through Service Strategy, Service Design, Service Transition and Service Operation. In effect, CSI is about looking for ways to improve process effectiveness, efficiency as well as cost effectiveness.

CSI objectives

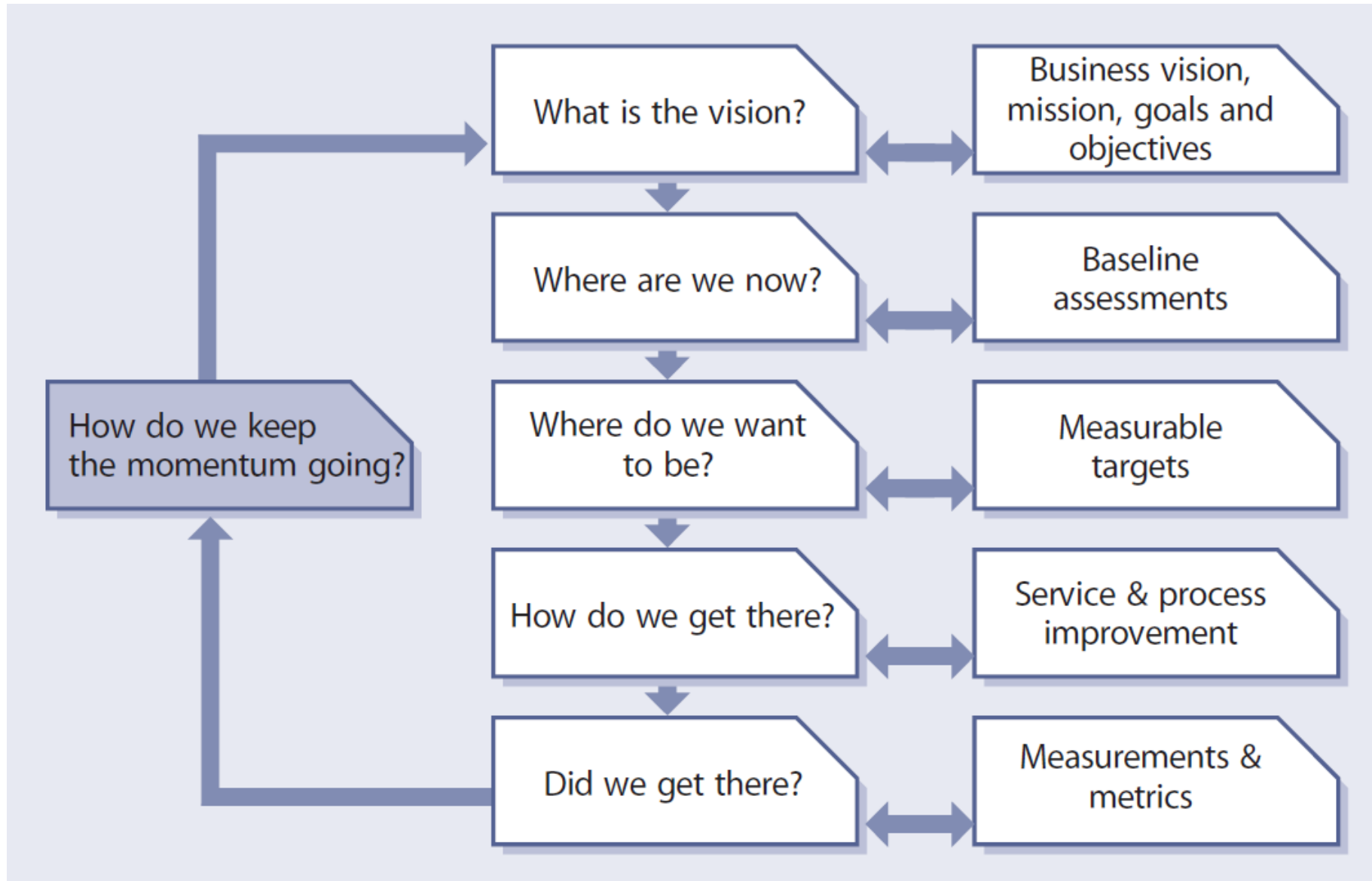
Review, analyse and make recommendations on improvement opportunities in each lifecycle phase.

- Review and analyse Service Level Achievement results.
- Identify and implement individual activities to improve IT service quality and improve the efficiency and effectiveness of enabling ITSM processes.
- Improve cost effectiveness of delivering IT services without sacrificing customer satisfaction.
- Ensure applicable quality management methods are used to support continual improvement activities.

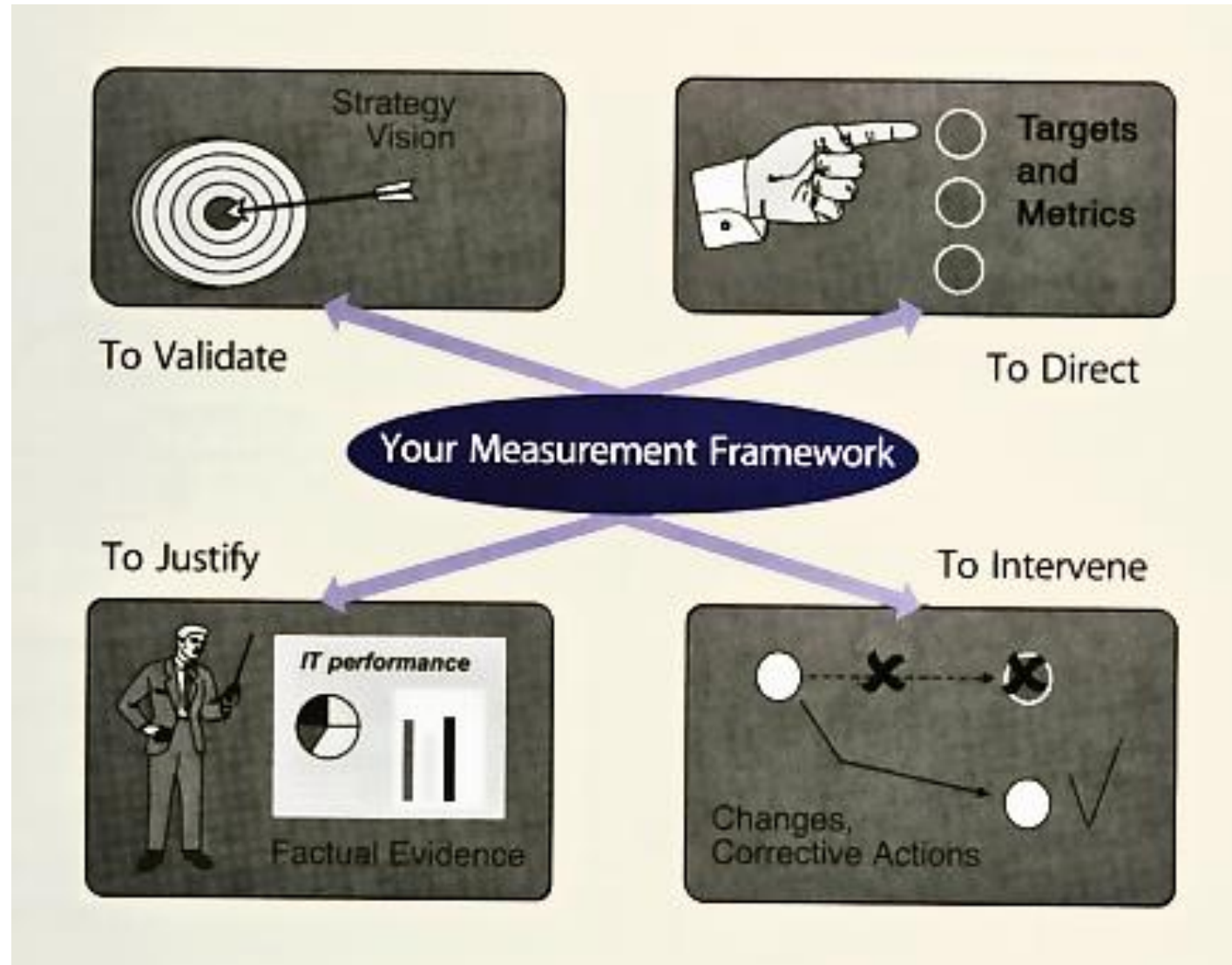
Deming Cycle



Continual Service Improvement model



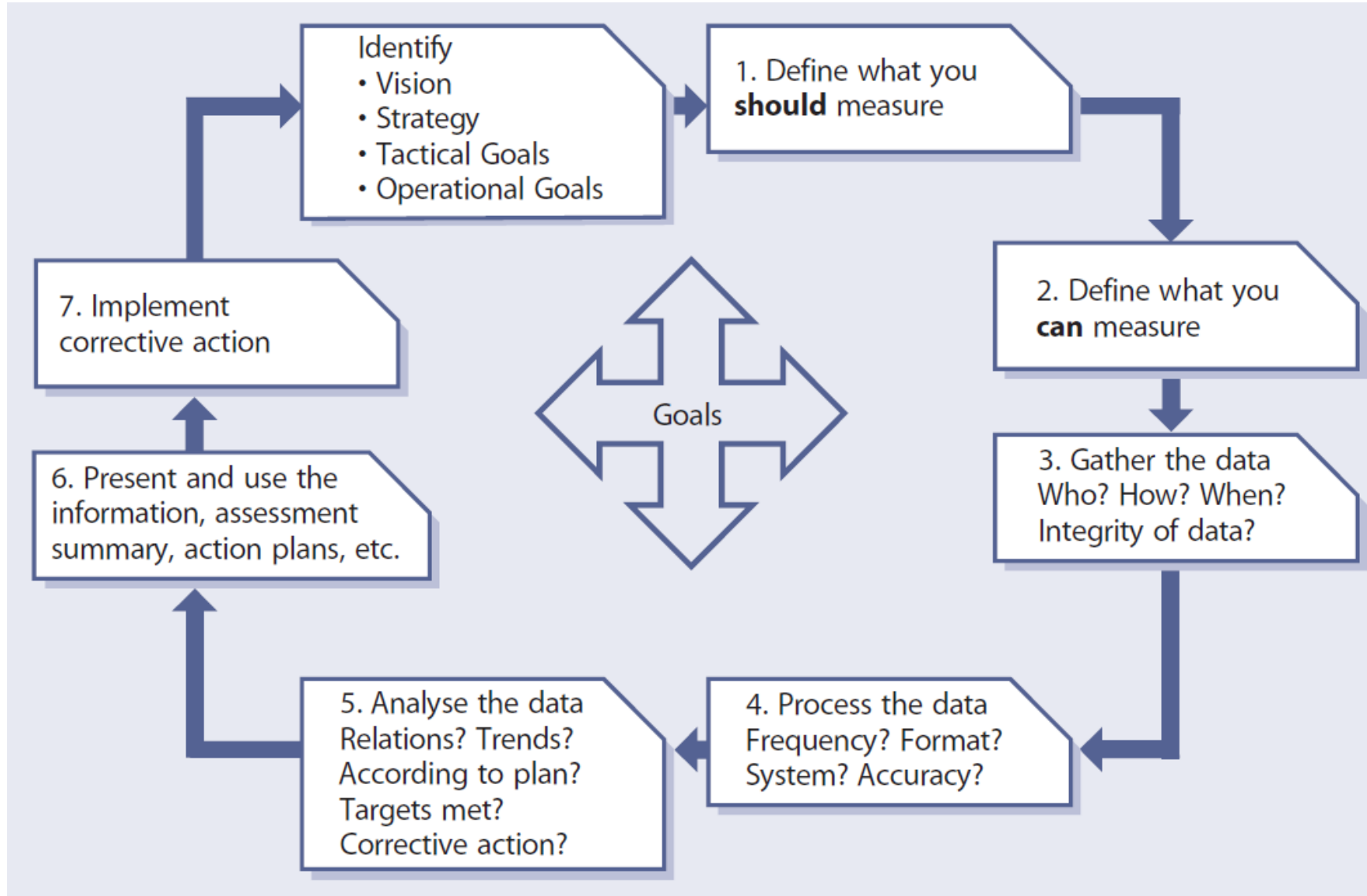
Metrics purposes



7-Step Improvement Process

ITIL: Continual Service Improvement

7-Step Improvement Process



1. Define what you should measure

At the onset of the service lifecycle, Service Strategy and Service Design should have identified this information. CSI can then start its cycle all over again at 'Where are we now?' This identifies the ideal situation for both the Business and IT.

2. Define what you can measure

This activity related to the CSI activities of 'Where do we want to be?' By identifying the new service level requirements of the business, the IT capabilities (identified through Service Design and implemented via Service Transition) and the available budgets, CSI can conduct a gap analysis to identify the opportunities for improvement as well as answering the question 'How will we get there?'

3. Gathering the data

In order to properly answer the 'Did we get there?' question, data must first be gathered (usually through Service Operations). Data is gathered based on goals and objectives identified. At this point

4. Processing the data

Here the data is processed in alignment with the CSFs and KPIs specified. This means that timeframes are coordinated, unaligned data is rationalized and made consistent, and gaps in data are identified. The simple goal of this step is to process data from multiple disparate sources into an 'apples to apples' comparison. Once we have rationalized the data we can then begin analysis.

5. Analysing the data

Here the data becomes information as it is analysed to identify service gaps, trends and the impact on business. It is the analysing step that is most often overlooked or forgotten in the rush to present data to management.

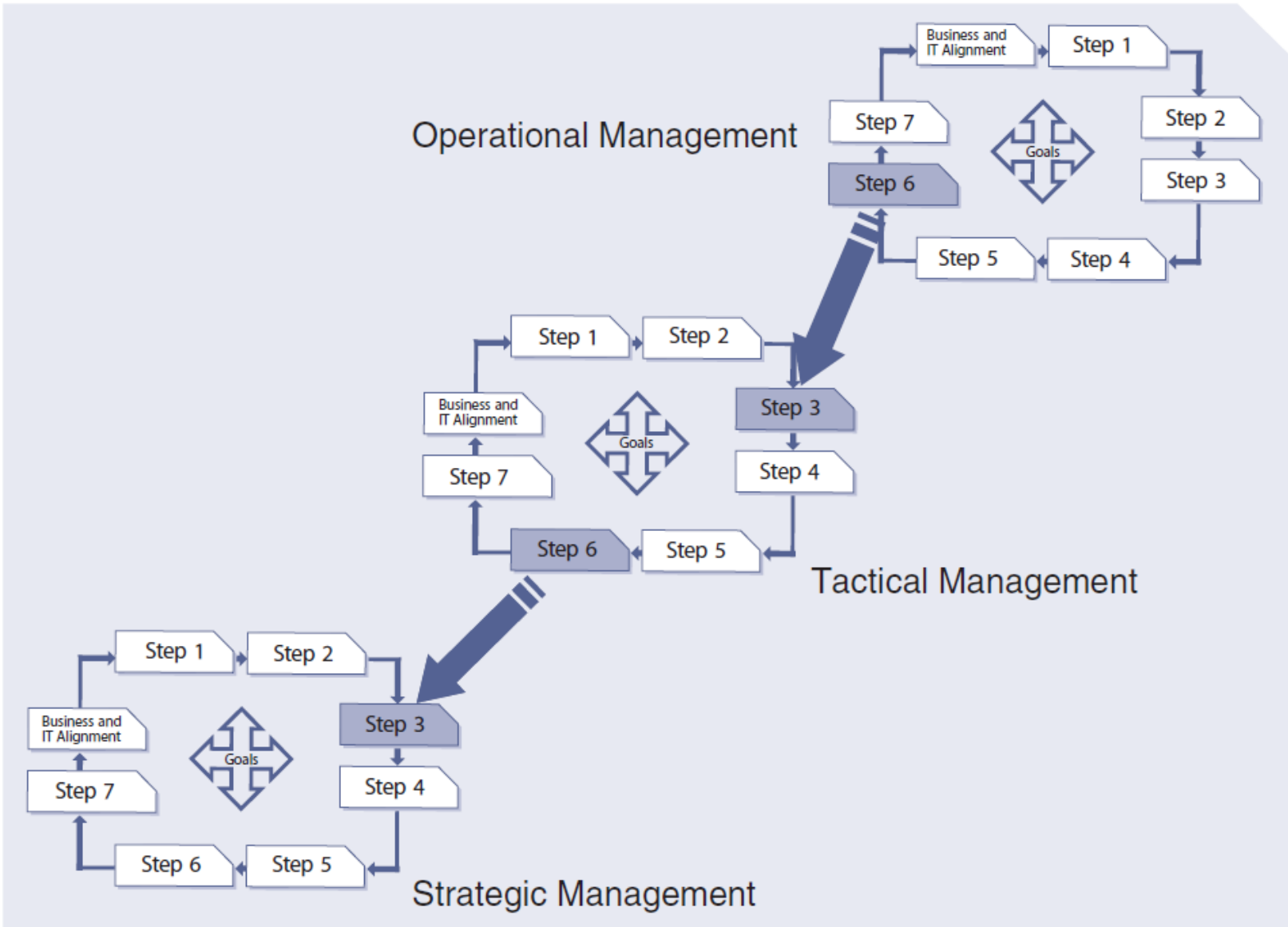
6. Presenting and using the information

Here the answer to 'Did we get there?' is formatted and communicated in whatever way necessary to present to the various stakeholders an accurate picture of the results of the improvement efforts. Knowledge is presented to the business in a form and manner that reflects their needs and assists them in determining the next steps.

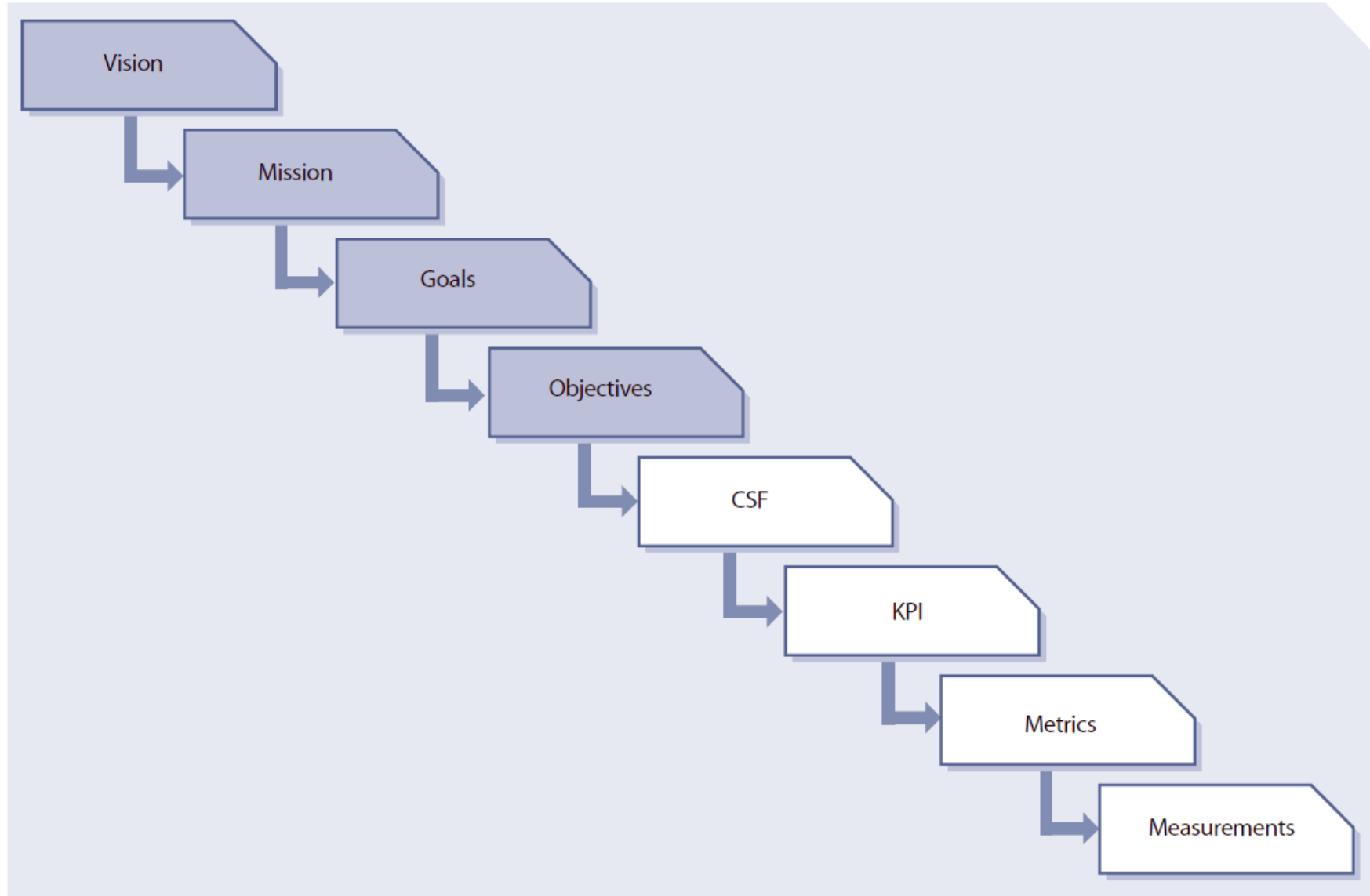
7. Implementing corrective action

The knowledge gained is used to optimize, improve and correct services. Managers identify issues and present solutions. The corrective actions that need to be taken to improve the service are communicated and explained to the organization.

Following this step the organization establishes a new baseline and the cycle begins anew.



From vision to measurements



Qualitative example

CSF: Improving IT service quality

KPI: 10 percent increase in customer satisfaction rating for handling incidents over the next 6 months.

Metrics required:

- Original customer satisfaction score for handling incidents
- Ending customer satisfaction score for handling incidents.

Measurements:

- Incident handling survey score
- Number of survey scores.

Three types of Metrics

Technology metrics (performance, availability etc. of component and application)

Process metrics (CSFs, KPIs and activity metrics for processes; health of a process)

Service metrics (end-to-end service; component metrics are used to compute the service metrics)



Implementace ITIL

ITIL?

K čemu to je?

Kdo to má používat?

ITIL?

Jaké firmy, organizace, společnosti si nasadí ITIL?

Jak jsou velké?

Kdo má v ČR ITIL?

ITIL

Provides:

- Best practices for ITSM
- Common language
- Drives continual improvement

Why should you adopt ITIL?

ITIL provides the foundation for quality IT Service Management. IT actively supports corporate aims by offering services which are based on efficient principles and adequately fulfill business requirements. It can become a profit generator instead of being seen as an inevitable cost burden.

ITIL Improved Service Quality

The introduction of a consistent set of processes will highlight potential weaknesses in the previous operations and encourages pro-active improvements.

Shortened resolution times, better management control, more reliable IT services and the implementation of permanent solutions to formally acknowledged problems are just some of the many ways ITIL will revolutionize your IT services.

ITIL Cost Reduction

By applying ITIL Best Practice to your IT operations you can take advantage of many ways of better cost control and cost reduction.

A lower Total Cost of IT Ownership (TCO) will be achieved through increased efficiency and productivity, lower incident volumes, faster incident resolution and less business disruption because of service failures.

ITIL Pro-active IT Management

It is no longer enough to simply maintain the IT infrastructure by adjusting and upgrading it after the need has arisen - today's IT managers are expected to support the success of the entire business by planning ahead and pro-actively shaping the business IT environment. Because ITIL has been devised by leading industry practitioners you can rest assured that you are implementing proven best-of-breed procedures.

Benefits of adopting ITIL

- IT services which align better with business priorities and objectives, meaning that the business achieves more in terms of its strategic objectives
- Known and manageable IT costs, ensuring the business better plans its finances
- Increased business productivity, efficiency and effectiveness, because IT services are more reliable and work better for the business users
- Financial savings from improved resource management and reduced rework
- More effective change management, enabling the business to keep pace with change and drive business change to its advantage
- Improved user and customer satisfaction with IT
- Improved end-customer perception and brand image.

Přehled o stavu ITIL

Vychází z 23 studií o používání ITIL

USA, Spojené království, Austrálie, Německo nebo Jižní Afrika atd.

Vztaženo na počet obyvatel používá ITIL 30% až 60% organizací.
V jednom případě je to až 85%.

Prvními třemi přínosy:

- Spokojenost zákazníka
- Kontrola nákladů
- Rychlejší odezva a řešení

Jak to ITSM zavedeme?

Vydáme směrnice? Popíšeme procesy? -> ani náhodou! ;-)

Především musí změnit myšlení IT lidí.

Většina IT lidí chodí do práce s tím, že když se někomu něco rozbije, tak oni jsou na telefonu a ad-hoc to opraví.

To že sedí na židli a čekají na telefonu považují za smysl svojí práce.

Můj kamarád to definoval jako: Koule na dveřích, pantofle a „někde tady běhá“

Jak to ITSM zavedeme?

Kulturní změna...

Ta se neobejde bez intenzivního vzdělávání.

Všichni musí na školení ITIL.

Oni si sami pak vytvoří svoje směrnice a postupy, tak jak si je dělali do dnes.

Můžeme jim ukázat, jak by to mělo být, ale oni musí chtít.