Re-cap of ITIL® 2007-2011 Foundation

Annex to ITIL 4

Service Lifecycle

- Based on the lifecycle of a service:
  - Strategy
  - Design
  - Transition
  - Operation
  - Continual improvement

Strategy

- Portfolio
  - Pipeline – services that may or may not be part of the offering
  - Service Catalogue – Service Offerings – Service Relationship management
- Demand
  - How services are used, monitored and measured
  - Requirements – functional and non-functional
- Finance
  - Budget
  - Accounting
  - Charging
- Business relationship
  - Opportunities
  - Relation between business and IT

Design

- **Service Catalogue**
  - Services offered. Can be business focused and technically focused. Also, services from 3rd party suppliers .
- **Service Level Management**
  - Service Level Agreement, (between Customer and IT), Operational Level Agreement (within IT department)
- **Supplier Management**
  - Keep track of the 3rd party suppliers, contracts (Underpinning Contract, UC)
- **Capacity**
  - Service capacity (as in SLA), infrastructure capacity
- **Availability**
  - Design for required availability, as in SLA
- **Information Security**
  - Protect the information (data and access to data)
- **IT Service Continuity**
  - Disaster recovery – not the same as IT incident management, part of Business Service Continuity plan
- **Processes**
  - Support and operational processes, including also Change, Configuration, Test and Validation
- **Measurements**
  - Service measurements design, capacity and availability measurements design, process design
- **Design Coordination**
  - Producing Service Design Package, which is input to Transition – contains requirements, UAT design and criteria, Solution architecture, High Level Design, Low Level Design (including application codes), outputs from all above processes, etc....

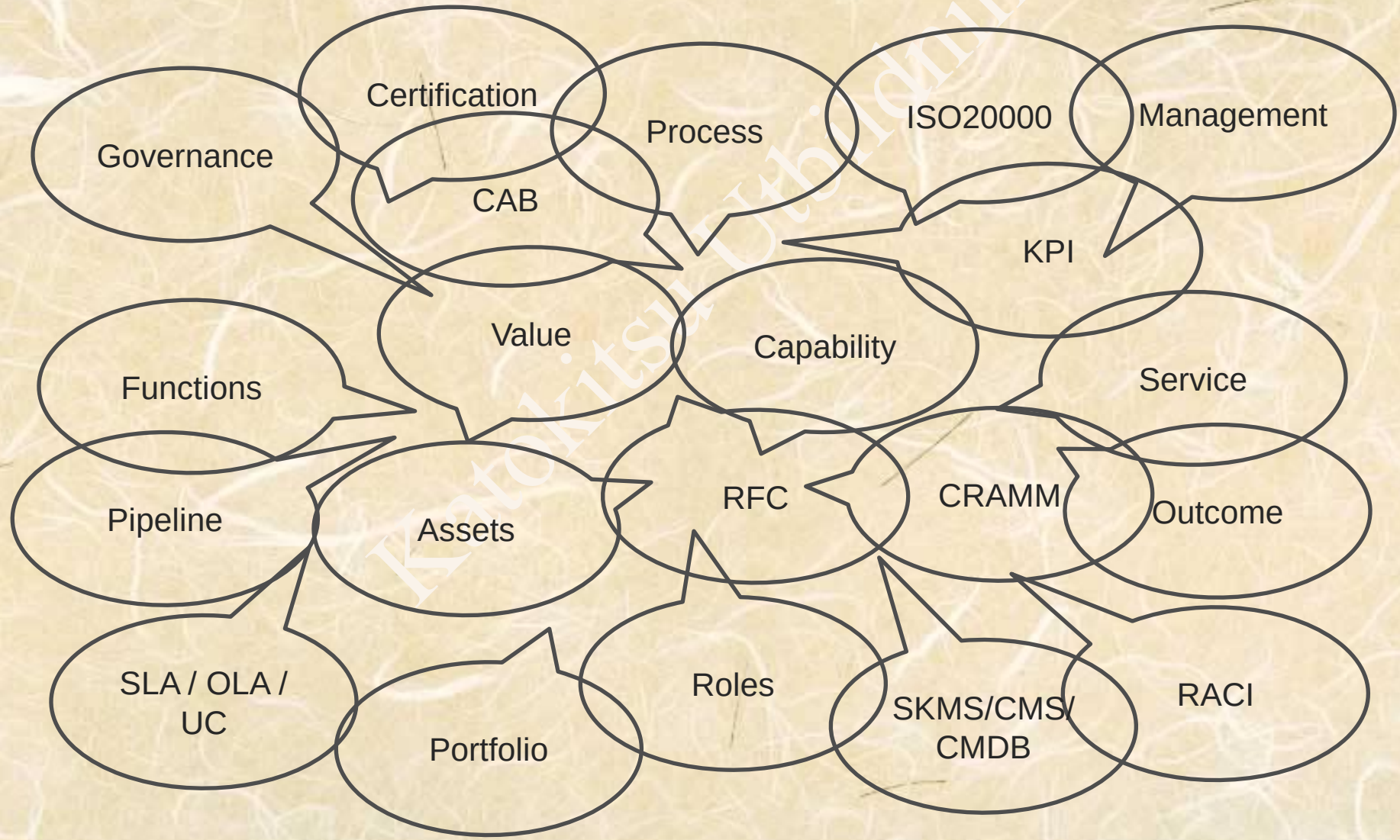
Transition

- **Planning and support**
  - Plan how the following processes will be executed, including resources (project plan)
- **Change**
  - Authorize changes to be implemented in the live environment
  - Standard, Nomal and Emergency changes
  - Change Authority for each type of change is advised to have
- **Release**
  - Make the release available for distribution (in the form of Release packages) and assure that the new service or changes are understood and can be used by users
- **Deployment**
  - Implement the change in the live environment
- **Configuration Management**
  - Record all service elements and their relation to each other
- **Test and Validation**
  - Test the release package and validate that the Release (the changed service) works according to requirements
- **Change Evaluation**
  - The last step before large scale deployment - evaluate the change and receive final GO / NO GO decision from Customer
- **Knowledge Management**
  - CMDB, CMS, SKMS

Operation

- **Incident**
  - Resolve the incident situation, assure that the user can work further
- **Problem**
  - Analyse why the incident(s) occure and design a workaround and a final resolution. Until final resolution is implemented, the Problem is called Know Error
- **Event**
  - Monitor the IT infrastructure and the services for availability, capacity, security. Some counter actions can be scripted in the Event Mgt tool. Report any status changes that has significance in the service provision,
- **Access**
  - As designed in Information Security Management, apply and use rules to allow access to information and services
- **Request fulfillment**
  - A user or a user's representative (manager) can request from Service Desk anything that is in the standard, contracted service delivery (Service Catalogue).

Terminology - ??????????



What is Service Management?

A set of specialized organisational capabilities for providing value to customers in form of services. ***(Based on AXELOS ITIL® material. Material is reproduced under licence from AXELOS)***

Service Management is the act of transforming resources into valuable services

Service: Delivering value to the customers by facilitating outcomes the customers want to achieve, without the ownership of specific costs and risks. ***(Based on AXELOS ITIL® material. Material is reproduced under licence from AXELOS)***

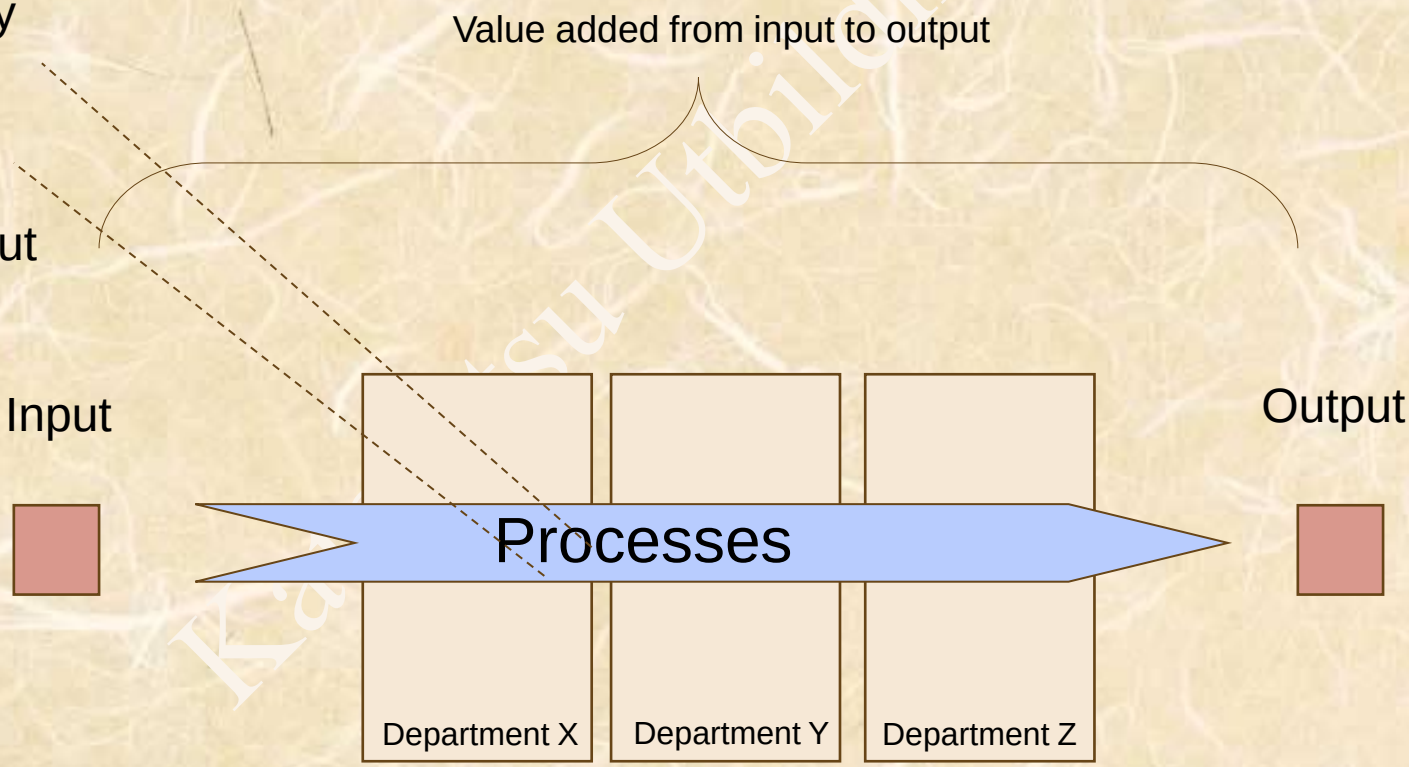
- **Capabilities**: functions and processes. Coordinate, control and deploy resources.

- **Function**: units of organisations specialized to perform certain type work and responsible for specific outcomes

- **Process**: a structured set of activities designed to accomplish a specific objective

Process thinking

- Objective
- Terminology
- Roles
- Resources
- Rules
- Input / output
- Actions



Enables continuous improvement

Definitions

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Process
A connected series of activities performed with the intent of satisfying a purpose or achieving a goal

Procedure
A set of specific steps that describe how an activity should be carried out and by whom. Can be supported by work instructions

Process owner
Responsible for ensuring the suitability of a process, include sponsorship, design, operation and quality assurance

Process Manager
Responsible for the execution of a process, operation of the defined and agreed process ensuring interfaces, target setting, process audits and managing improvement

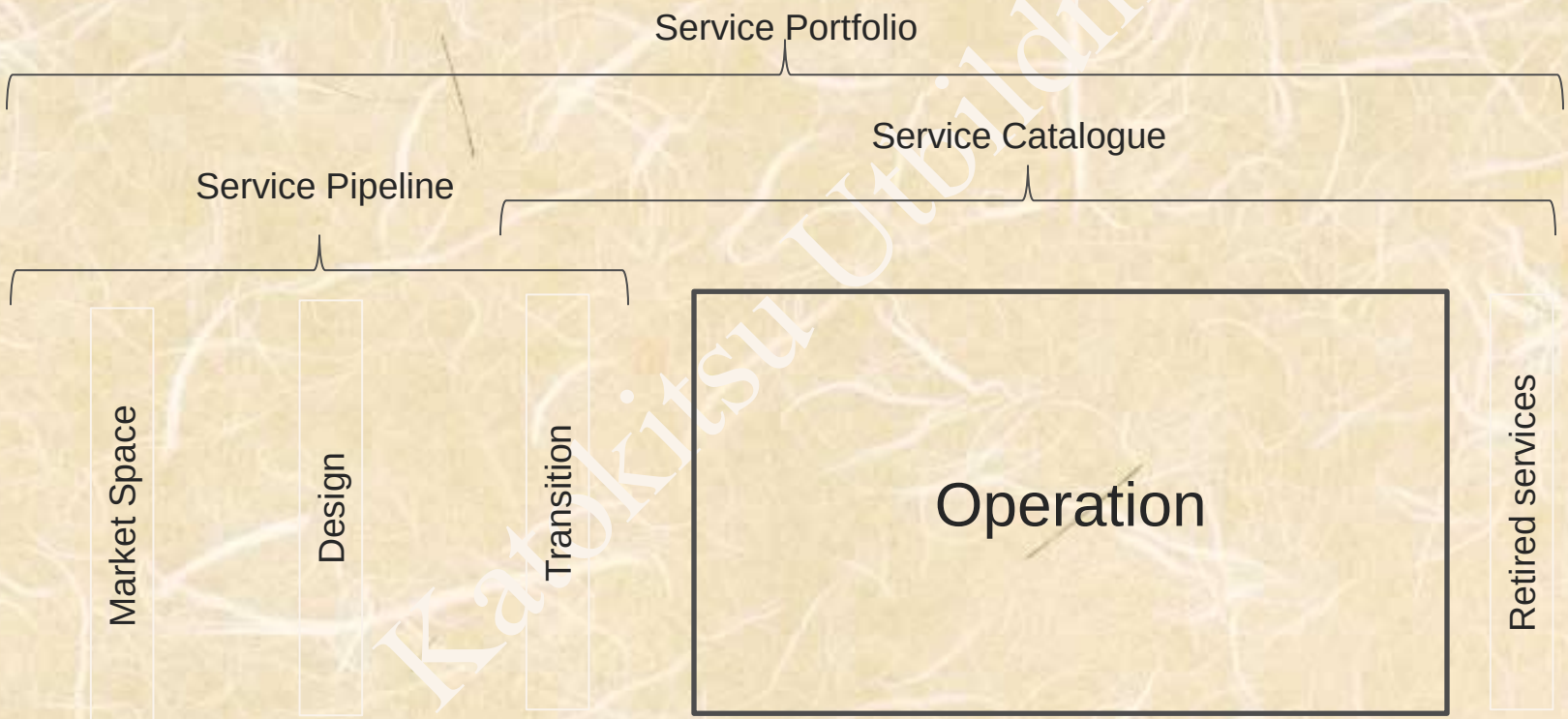
Process practitioner
-Carries out process activities
-Validates / verifies inputs and outputs
-Updates records

Service Lifecycle Map

Service Strategy	Service Design	Service Transition	Service Operation
•Portfolio Mgt •Demand Mgt •Financial Mgt •Business Relationship Mgt	•Supplier Mgt •Information Security Mgt •Service Catalogue Mgt •Service Level Mgt •IT Service Continuity Mgt •Availability Mgt •Capacity Mgt •Design Coordination •. . .	•Transition Planning and Support •Change Mgt •Service Asset and Configuration Mgt •Release and Deployment Mgt •Service Validation and Testing •Knowledge Mgt	•Incident Mgt •Problem Mgt •Event Mgt •Access Mgt •Request fulfillment

Continual Service Improvement

Service Portfolio



Service Design - Service Level Management - SLM

Purpose

Represent the IT Service provider to the business and the business to the IT Service provider.

Objectives

To negotiate, agree and document IT Service targets with the business; monitors and produces reports on the ability to deliver the agreed level of service.

Service Design - SLM

- SLA
  - Service Level Agreement
    - Corporate level, Customer or Business Unit Level, Service Specific
    - Between Customer and IT organization
- OLA
  - Operational Level Agreement
    - Within IT organization, agreement between units

Service Design - SLM activities and KPIs

- Design framework for SLA (template, document structure) – start where you are
- Monitor and produce reports on service performance
- Measure and strive to improve customer satisfaction

Key Performance Indicators (KPIs)

- # or % of service targets being met
- # and severity of service breaches
- # of services with up-to-date SLAs
- Improvements in customer satisfaction

Service Operations – Incident Management, definition

Incident: if something is not working as it should.

Objective:

To restore the normal service operation as quickly as possible with minimum disruptions to the business, thus ensuring that the best achievable levels of availability and service are maintained.

Incident Management concentrates on restoring the service to users as quickly as possible. 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.

Process activities:

Recording, classification, initial support, diagnosis and recovery, closure.

Service Transition – Change Management

Service change

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

- Standardized methods and procedures for efficient and prompt handling of all changes
- All changes to service assets and configuration items are recorded in the Configuration Management System
- Overall business risk is optimized.
- An appointed Change Authority approves the change prior to deploying to live environment.
  - Preferably, for each change type there should be a Change Authority appointed.

Service Transition – Change Management

- There is little gain in improving the Warranty if the service does not support Customer outcomes
- There is little gain in improving the Utility if the service is unreliable, unpredictable

Any and every change affects the provided service and its value -> therefore, the Outcome the Customer wants to achieve.

Service Transition – Change Management

- A standard change is a change to a service or infrastructure for which
  - the approach is pre-authorized by Change Authority
  - has an accepted and established procedure to provide a specific change requirement.
    - Pre-approved
    - Known costs
    - Known risks
    - Known procedure
    - Known resources

- Some standard changes will be triggered by the Request Fulfillment Process and be directly recorded and passed for action by the service desk.

Service Transition – Change Management – 7 Rs

- Who RAISED the change?
- What is the REASON for the change?
- What is the RETURN required from the change? Focus on value!
- What are the RISKS involved in the change?
- What RESOURCES are required to deliver the change?
- Who is RESPONSIBLE for the build, test and implementation of the change?
- What is the RELATIONSHIP between this change and other changes?

Service Transition – Change Advisory Board - CAB

A group of representative people responsible for assessing all RFC(s) based on:

- Business impact
- Priority
- Resources (cost, people…)

The CAB gives advice to Change Management

Involve the persons that are needed to asses the Change: Service Level Manager, User, Customer, Release Manager, Application Manager etc

Service Operations – Incident Management, Priority

Impact

- The effect upon the activities of the business

Urgency

- How quickly the Incident needs to be resolve

Priority

Urgent, High, Medium, Low

Service Operations – Incident Management, definitions

Incident

– Any event / interruption, which is not part of the standard operation of a Service or causes or may cause a reduction in the quality of that service

Incident examples:

- *Application* *Service not available, application bug*
- *Hardware* *System down, printer not printing*

Work-Around (WA)

– Method / temporary solution of avoiding an Incident, so that the normal standard operation can continue

Service Operations – Incident Management, categorisation

Categorization is used for:

- Recording incidents – as perceived by User
- Recording the final detected causes – may differ from perception
- Analysing trends to identify specific problem areas
- Escalating incidents to expert groups

Service Operations – Incident Management, matching

Review incidents against Known Errors, problems, solutions, planned changes or knowledge base. Automation can help in matching incidents to earlier records.

Incident DB

- Contains incidents without a Work-around / solution

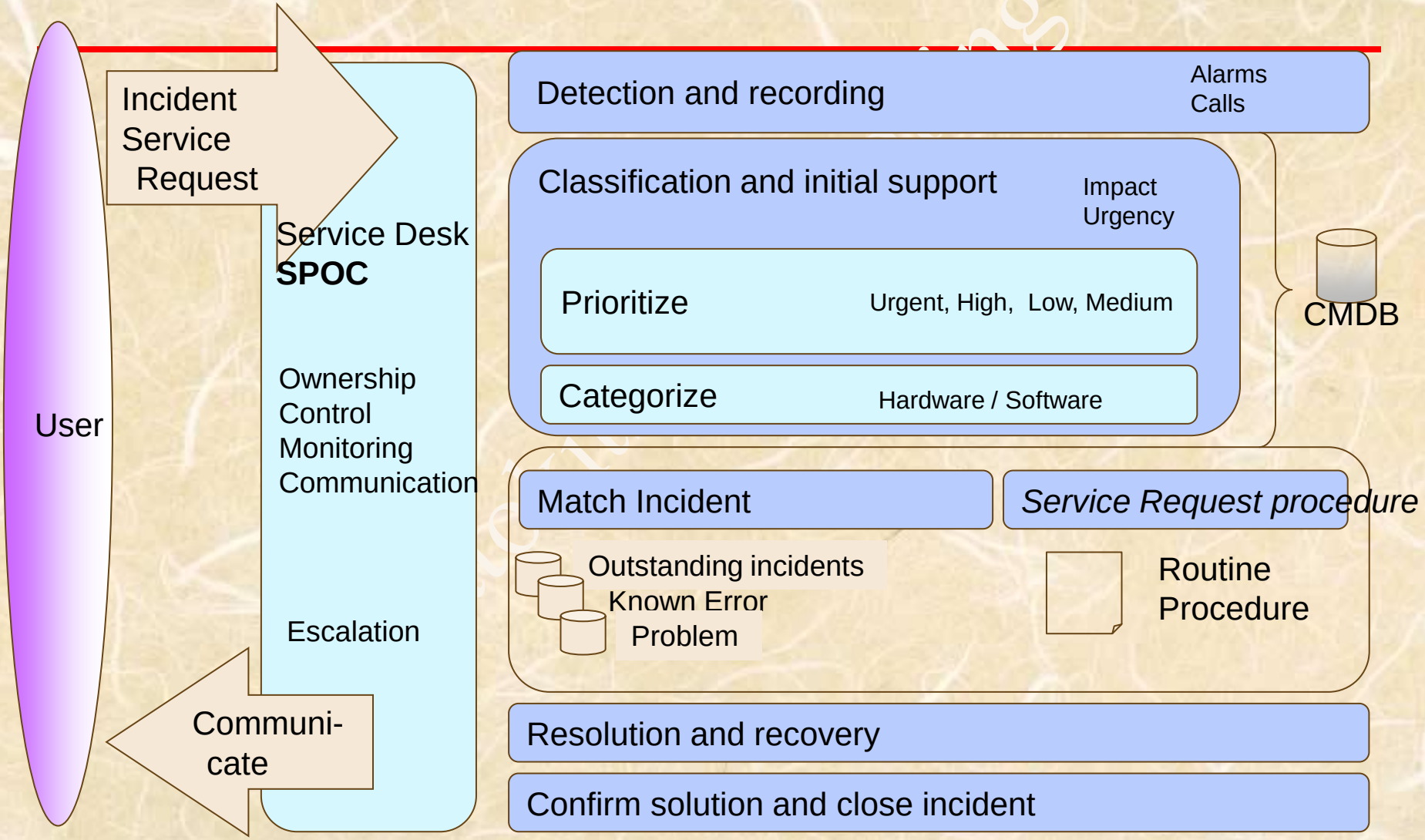
Problem DB

- Contains problems without a solution but maybe with a Work-around

Known Error DB

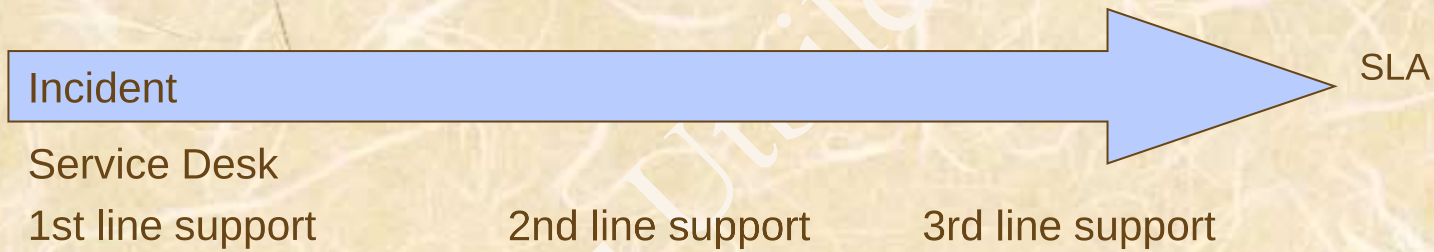
- Contains Work-around and/or permanent solutions of Known Errors

Service Operations – Incident Management, process



Service Operations – Incident Management, escalation

Functional escalation / Incident routing
- More or other knowledge



Hierarchical escalation / Vertical escalation

– Escalation to a higher hierarchical layer
– Used when SLA will not be met and for major Incident

Service Operations – Request Fulfillment

Service Request: demands on IT dept. Can be information or small changes.

Purpose:

- To provide a channel for users (or user's respresentatives) to request and receive standard (contracted) services for which a pre-defined approval and qualification process exists.

- To provide information to users and customers about the availability of services and the procedure for obtaining them.

In an organization where large numbers of Service Requests have to be handled, it may be appropriate to handle Service Requests as a completely separate (i.e. not Incident Management) work stream – and to record and manage them as a separate record type.

Service Operations – Problem Management

Problem

– *When the root cause (=underlying cause) of one or more incidents is not known*

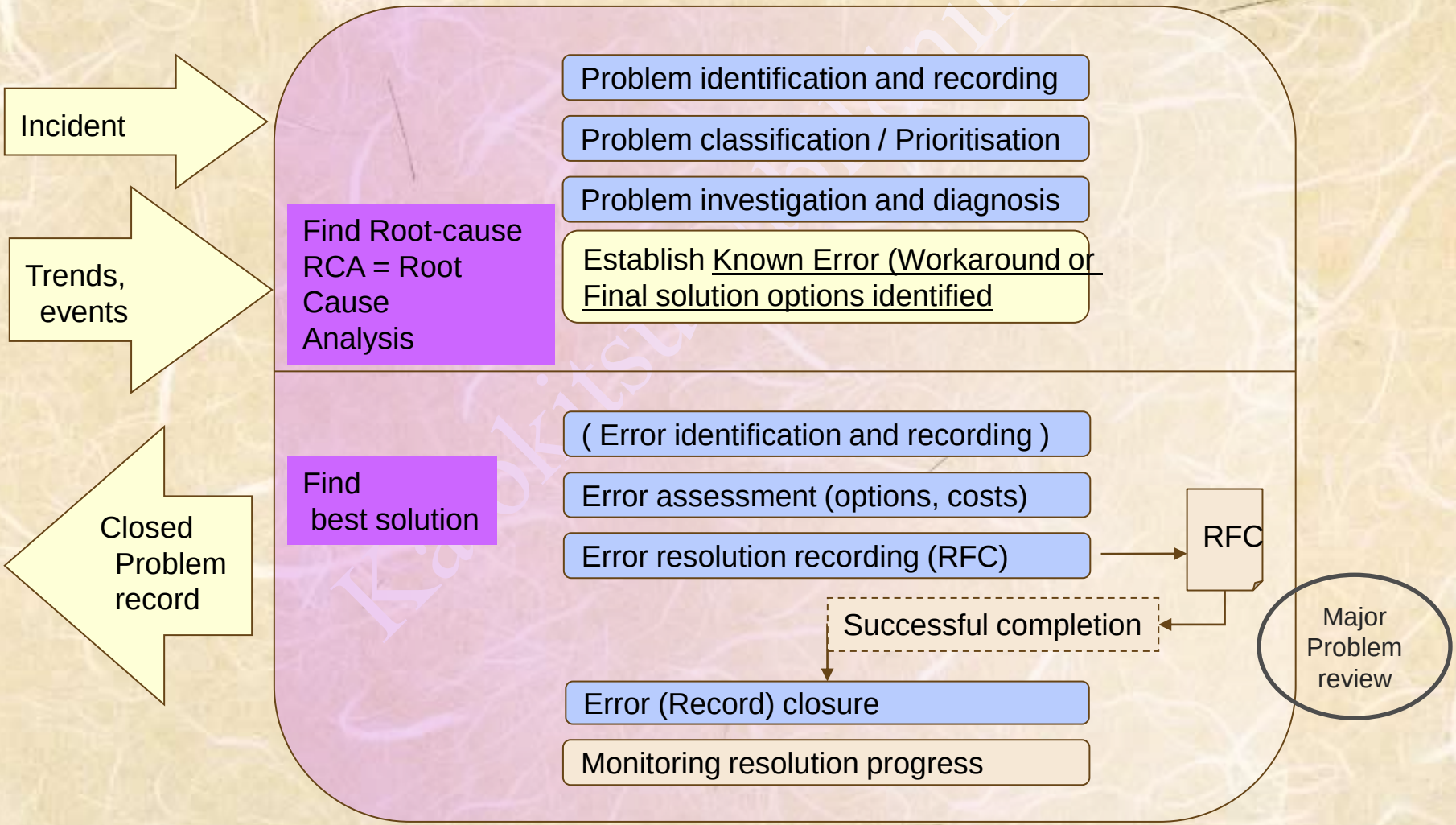
Known Error

– *An Incident or Problem for which the root cause is known and for which a temporary Work-around or a permanent alternative has been identified.*

Objective:

Minimise the adverse impact on the business of incidents and problems caused by errors in the infrastructure, and to proactively prevent the occurrence of incidents, problems and Errors

Service Operations – Problem Management, flow



Service Operations – Problem Management

Problem Management involves

- root-cause analysis (RCA) to determine and resolve the cause of events and incidents,
- proactive activities to detect and prevent future problems/incidents and a
- Known Error subprocess (v2) to allow quicker diagnosis and resolution if further incidents do occur.

Purpose:

- to prevent problems and resulting incidents from happening,
- to eliminate recurring incidents and
- to minimize the impact of incidents that cannot be prevented.

Service Operations – Problem Management

Known Error Database:

To store problems and their temporary solutions (workarounds).

To help resolve quickly any further occurrences of the incidents/problems that occur.

Known Errors can also be recorded by Service / application design and testing if the error exists even when the service / application is deployed.

Problem Management may initiate a change through raising an RFC. The error record is open until the change is implemented.

Continual Service Improvement

Vision – *objective*, strategy, tactical goals, operational goals

Wish – what you *should* measure

1

Can – what you *can* measure

2

Collect – *gather* the data

3

Process – process the data->*information*

4

Analyse – information ->*knowledge*

5

Report – to CIO

6

Act - *implement*

7

CSI Register

It is beneficial to keep track of the CSI opportunities and activities, in order to be able to make decisions and manage the improvement activities and record decisions.

A register of some kind can be implemented for the purpose, that can be a simple excel datasheet or a function of the IT Service Management toolset used.

To participate (at least give input to) in the Continual Improvement is everyone's responsibility, at any stage of the service life cycle.