



# ITIL V3 : Introduction and Overview

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# Agenda for the Session



- **What is ITIL?**
  - **What about v3?**
  - **Key Concepts**
  - **Service Management & Delivery**
  - **The Service Lifecycle**
  - **The Five Stages of the lifecycle**
  - **ITIL Roles**
  - **Functions and Processes**
  - **Further Learning**
  - **Accreditation**
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# What is ITIL?



- **Systematic approach to high quality IT service delivery**
  - **Documented best practice for IT Service Management**
  - **Provides common language with well-defined terms**
  - **Developed in 1980s by what is now The Office of Government Commerce**
  - **itSMF also involved in maintaining best practice documentation in ITIL**
    - itSMF is global, independent, not-for-profit
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# What about v3?



- **ITIL started in 80s.**
    - 40 publications!
  - **v2 came along in 2000-2002**
    - Still Large and complex
    - 8 Books
    - Talks about what you should do
  - **v3 in 2007**
    - Much simplified and rationalised to 5 books
    - Much clearer guidance on how to provide service
    - Easier, more modular accreditation paths
    - Keeps tactical and operational guidance
    - Gives more prominence to strategic ITIL guidance relevant to senior staff
    - Aligned with ISO20000 standard for service management
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# Key Concepts



- **Service Level**
    - Measured and reported achievement against one or more service level targets
    - E.g.
      - Red = 1 hour response 24/7
      - Amber = 4 hour response 8/5
      - Green = Next business day
  - **Service Level Agreement**
    - Written and negotiated agreement between Service Provider and Customer documenting agreed service levels and costs
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# Key Concepts



- **Configuration Management System (CMS)**
    - Tools and databases to manage IT service provider's configuration data
    - Contains Configuration Management Database (CMDB)
      - Records hardware, software, documentation and anything else important to IT provision
  - **Release**
    - Collection of hardware, software, documentation, processes or other things require to implement one or more approved changes to IT Services
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# Key Concepts



- **Incident**
    - Unplanned interruption to an IT service or an unplanned reduction in its quality
  - **Work-around**
    - Reducing or eliminating the impact of an incident without resolving it
  - **Problem**
    - Unknown underlying cause of one or more incidents
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# 4 Ps of Service Management



- ❖ **People – skills, training, communication**
  - ❖ **Processes – actions, activities, changes, goals**
  - ❖ **Products – tools, monitor, measure, improve**
  - ❖ **Partners – specialist suppliers**
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# Service Delivery Strategies



Strategy	Features
In-sourcing	All parts internal
Out-sourcing	External resources for specific and defined areas (e.g. Contract cleaners)
Co-Sourcing	Mixture of internal and external resources
Knowledge Process Outsourcing (domain-based business expertise)	Outsourcing of particular processes, with additional expertise from provider
Application Outsourcing	External hosting on shared computers – applications on demand (e.g. Survey Monkey, Meet-o-matic)
Business Process Outsourcing	Outsourcing of specific processes e.g. HR, Library Circulation, Payroll
Partnership/Multi-sourcing	Sharing service provision over the lifecycle with two or more organisations (e.g. Shared IT Corpus/Oriel)

# The Service Lifecycle



- **Service Strategy**
    - Strategy generation
    - Financial management
    - Service portfolio management
    - Demand management
  - **Service Design**
    - Capacity, Availability, Info Security Management
    - Service level & Supplier Management
  - **Service Transition**
    - Planning & Support
    - Release & Deployment
    - Asset & Config management
  - Change management
  - Knowledge Management
  - **Service Operation**
    - Problem & Incident management
    - Request fulfilment
    - Event & Access management
  - **Continual Service Improvement**
    - Service measurement & reporting
    - 7-step improvement process
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# How the Lifecycle stages fit together



# Service Strategy

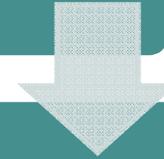


- **What are we going to provide?**
  - **Can we afford it?**
  - **Can we provide enough of it?**
  - **How do we gain competitive advantage?**
  - **Perspective**
    - Vision, mission and strategic goals
  - **Position**
  - **Plan**
  - **Pattern**
    - Must fit organisational culture
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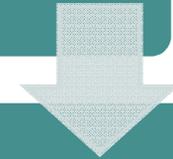
# Service Strategy has four activities



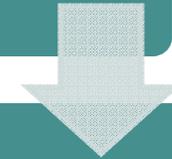
Define the Market



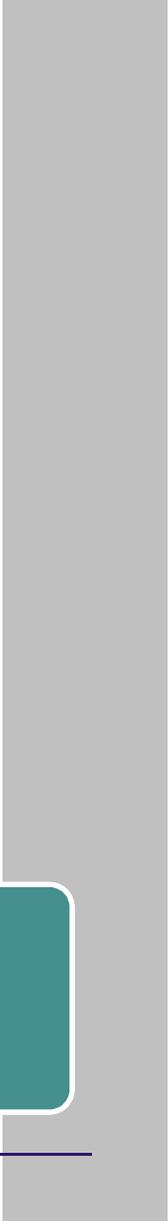
Develop the Offerings



Develop Strategic Assets



Prepare for Execution



# Service Assets



- **Resources**
    - Things you buy or pay for
    - IT Infrastructure, people, money
    - Tangible Assets
  - **Capabilities**
    - Things you grow
    - Ability to carry out an activity
    - Intangible assets
    - Transform resources into Services
-

# Service Portfolio Management



- **Prioritises and manages investments and resource allocation**
  - **Proposed services are properly assessed**
    - Business Case
  - **Existing Services Assessed. Outcomes:**
    - Replace
    - Rationalise
    - Renew
    - Retire
-

# Demand Management



- ❖ **Ensures we don't waste money with excess capacity**
  - ❖ **Ensures we have enough capacity to meet demand at agreed quality**
  - ❖ **Patterns of Business Activity to be considered**
    - E.g. Economy 7 electricity, Congestion Charging
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# Service Design



- **How are we going to provide it?**
- **How are we going to build it?**
- **How are we going to test it?**
- **How are we going to deploy it?**

**Holistic approach to determine the impact of change introduction on the existing services and management processes**

# Processes in Service Design



- ❖ **Availability Management**
  - ❖ **Capacity Management**
  - ❖ **ITSCM (disaster recovery)**
  - ❖ **Supplier Management**
  - ❖ **Service Level Management**
  - ❖ **Information Security Management**
  - ❖ **Service Catalogue Management**
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# Service Catalogue



Business Process A

Business Process B

Business Process C

Business Service Catalogue

Service 1

Service 2

Service 3

Service 4

Service 5

Service 6

Technical Service Catalogue

Hardware

Software

Support

Applications

Databases

Capability

**Keeps service information away from business information  
Provides accurate and consistent information enabling  
service-focussed working**

# Service Level Management



- **Service Level Agreement**
    - Operational Level Agreements
      - Internal
    - Underpinning Contracts
      - External Organisation
      - Supplier Management
    - Can be an annexe to a contract
    - Should be clear and fair and written in easy-to-understand, unambiguous language
  - **Success of SLM (KPIs)**
    - How many services have SLAs?
    - How does the number of breaches of SLA change over time (we hope it reduces!)?
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# Things you might find in an SLA



Service  
Description

Hours of  
operation

User Response  
times

Incident  
Response  
times

Resolution  
times

Availability &  
Continuity  
targets

Customer  
Responsibilities

Critical  
operational  
periods

Change  
Response  
Times

# Types of SLA



## ❖ Service-based

- All customers get same deal for same services

## ❖ Customer-based

- Different customers get different deal (and different cost)

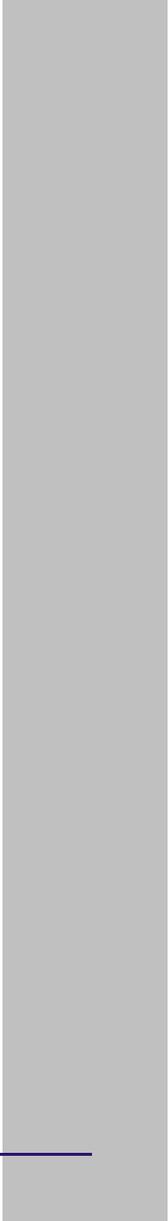
## ❖ Multi-level

- These involve corporate, customer and service levels and avoid repetition
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# Right Capacity, Right Time, Right Cost!



- ❖ **This is capacity management**
- ❖ **Balances Cost against Capacity so minimises costs while maintaining quality of service**



# Is it available?



- **Ensure that IT services matches or exceeds agreed targets**
  - **Lots of Acronyms**
    - Mean Time Between Service Incidents
    - Mean Time Between Failures
    - Mean Time to Restore Service
  - **Resilience increases availability**
    - Service can remain functional even though one or more of its components have failed
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# ITSCM – what?



- ❖ **IT Service Continuity Management**
  - ❖ **Ensures resumption of services within agreed timescale**
  - ❖ **Business Impact Analysis informs decisions about resources**
    - E.g. Stock Exchange can't afford 5 minutes downtime but 2 hours downtime probably wont badly affect a departmental accounts office or a college bursary
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# Standby for liftoff...



## ❖ Cold

- Accommodation and environment ready but no IT equipment

## ❖ Warm

- As cold plus backup IT equipment to receive data

## ❖ Hot

- Full duplexing, redundancy and failover
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# Information Security Management



## ❖ Confidentiality

- Making sure only those authorised can see data

## ❖ Integrity

- Making sure the data is accurate and not corrupted

## ❖ Availability

- Making sure data is supplied when it is requested
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# Service Transition



- ❖ **Build**
  - ❖ **Deployment**
  - ❖ **Testing**
  - ❖ **User acceptance**
  - ❖ **Bed-in**
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# Good service transition



- **Set customer expectations**
  - **Enable release integration**
  - **Reduce performance variation**
  - **Document and reduce known errors**
  - **Minimise risk**
  - **Ensure proper use of services**
  - **Some things excluded**
    - Swapping failed device
    - Adding new user
    - Installing standard software
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# Knowledge management



- ❖ **Vital to enabling the right information to be provided at the right place and the right time to the right person to enable informed decision**
  - ❖ **Stops data being locked away with individuals**
  - ❖ **Obvious organisational advantage**
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# Data-Information- Knowledge-Wisdom



Wisdom cannot be assisted by technology  
– it only comes with experience!

Service Knowledge Information  
Management System is crucial to retaining  
this extremely valuable information

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# Service Asset and Configuration



- ❖ **Managing these properly is key**
  - ❖ **Provides Logical Model of Infrastructure and Accurate Configuration information**
  - ❖ **Controls assets**
  - ❖ **Minimised costs**
  - ❖ **Enables proper change and release management**
  - ❖ **Speeds incident and problem resolution**
-

# Configuration Management System



Service  
Management  
KB

Asset and  
Configuration  
Info

Change Data

Release Data

Application  
Data

Document

Definitive  
Media Library

Configuration  
Management  
DB

# Painting the Forth Bridge...



- ❖ **A Baseline is a “last known good configuration”**
  - ❖ **But the CMS will always be a “work in progress” and probably always out of date. But still worth having**
  - ❖ **Current configuration will always be the most recent baseline plus any implemented approved changes**
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# Change Management – or what we all get wrong!



- **Respond to customers changing business requirements**
  - **Respond to business and IT requests for change that will align the services with the business needs**
  - **Roles**
    - Change Manager
    - Change Authority
      - Change Advisory Board (CAB)
      - Emergency CAB (ECAB)
  - **80% of service interruption is caused by operator error or poor change control (Gartner)**
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# Change Types



## ❖ Normal

- Non-urgent, requires approval

## ❖ Standard

- Non-urgent, follows established path, no approval needed

## ❖ Emergency

- Requires approval but too urgent for normal procedure

# Change Advisory Board



- **Change Manager (VITAL)**
  - **One or more of**
    - Customer/User
    - User Manager
    - Developer/Maintainer
    - Expert/Consultant
    - Contractor
  - **CAB considers the 7 Rs**
    - Who RAISED?, REASON, RETURN, RISKS, RESOURCES, RESPONSIBLE, RELATIONSHIPS to other changes
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# Release Management



- **Release is a collection of authorised and tested changes ready for deployment**
  - **A rollout introduces a release into the live environment**
  - **Full Release**
    - e.g. Office 2007
  - **Delta (partial) release**
    - e.g. Windows Update
  - **Package**
    - e.g. Windows Service Pack
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# Phased or Big Bang?

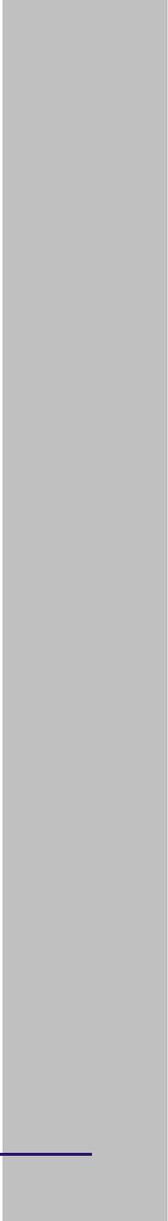


- ❖ **Phased release is less painful but more work**
  - ❖ **Deploy can be manual or automatic**
  - ❖ **Automatic can be push or pull**
  - ❖ **Release Manager will produce a release policy**
  - ❖ **Release MUST be tested and NOT by the developer or the change instigator**
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# Service Operation



- ❖ **Maintenance**
- ❖ **Management**
- ❖ **Realises Strategic Objectives and is where the Value is seen**



# Processes in Service Operation

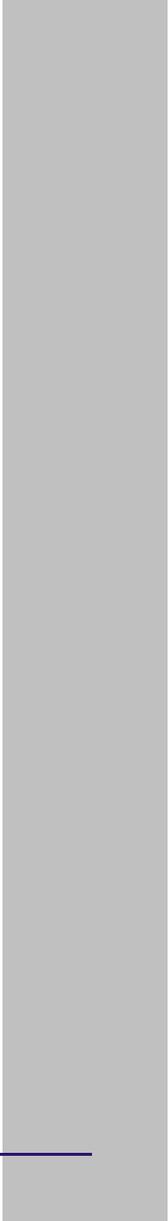


- ❖ **Incident Management**
  - ❖ **Problem Management**
  - ❖ **Event Management**
  - ❖ **Request Fulfilment**
  - ❖ **Access Management**
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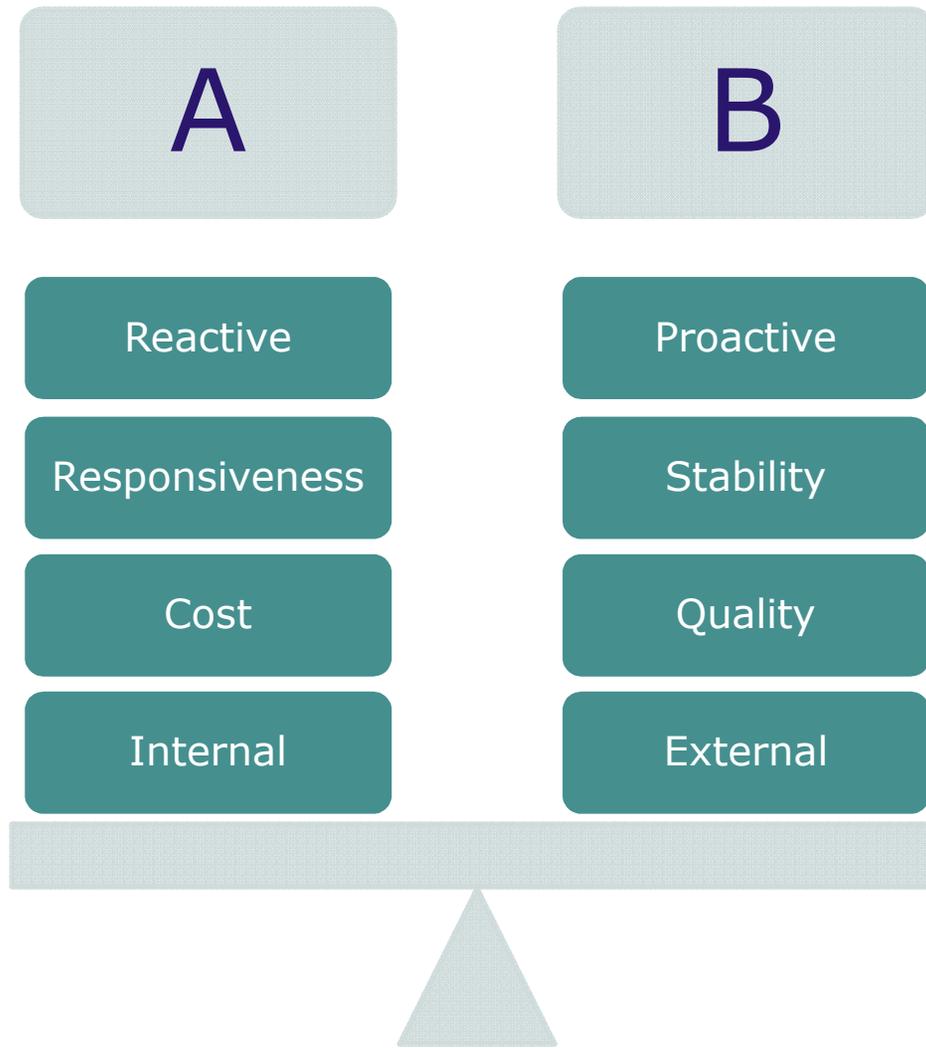
# Functions in Service Operation



- ❖ **Service Desk**
- ❖ **Technical Management**
- ❖ **IT Operations Management**
- ❖ **Applications Management**



# Service Operation Balances



# Incident Management



- **Deals with unplanned interruptions to IT Services or reductions in their quality**
  - **Failure of a configuration item that has not impacted a service is also an incident (e.g. Disk in RAID failure)**
  - **Reported by:**
    - Users
    - Technical Staff
    - Monitoring Tools
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# Event Management

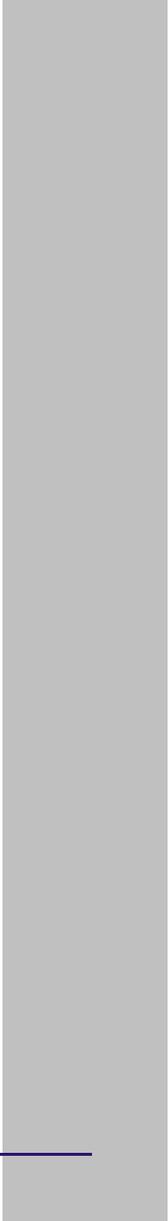


## ❖ 3 Types of events

- Information
- Warning
- Exception

## ❖ Can we give examples?

## ❖ Need to make sense of events and have appropriate control actions planned and documented



# Request Fulfilment



- ❖ **Information, advice or a standard change**
  - ❖ **Should not be classed as Incidents or Changes**
  - ❖ **Can we give more examples?**
-

# Problem Management



- **Aims to prevent problems and resulting incidents**
  - **Minimises impact of unavoidable incidents**
  - **Eliminates recurring incidents**
  - **Proactive Problem Management**
    - Identifies areas of potential weakness
    - Identifies workarounds
  - **Reactive Problem Management**
    - Identifies underlying causes of incidents
    - Identifies changes to prevent recurrence
-

# Access Management



❖ **Right things for right users at right time**

❖ **Concepts**

- Access
  - Identity (Authentication, AuthN)
  - Rights (Authorisation, AuthZ)
  - Service Group
  - Directory
-

# Service Desk



- **Local, Central or Virtual**
  - **Examples?**
  - **Single point of contact**
  - **Skills for operators**
    - Customer Focus
    - Articulate
    - Interpersonal Skills (patient!)
    - Understand Business
    - Methodical/Analytical
    - Technical knowledge
    - Multi-lingual
  - **Service desk often seen as the bottom of the pile**
    - Bust most visible to customers so important to get right!
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# Continual Service Improvement



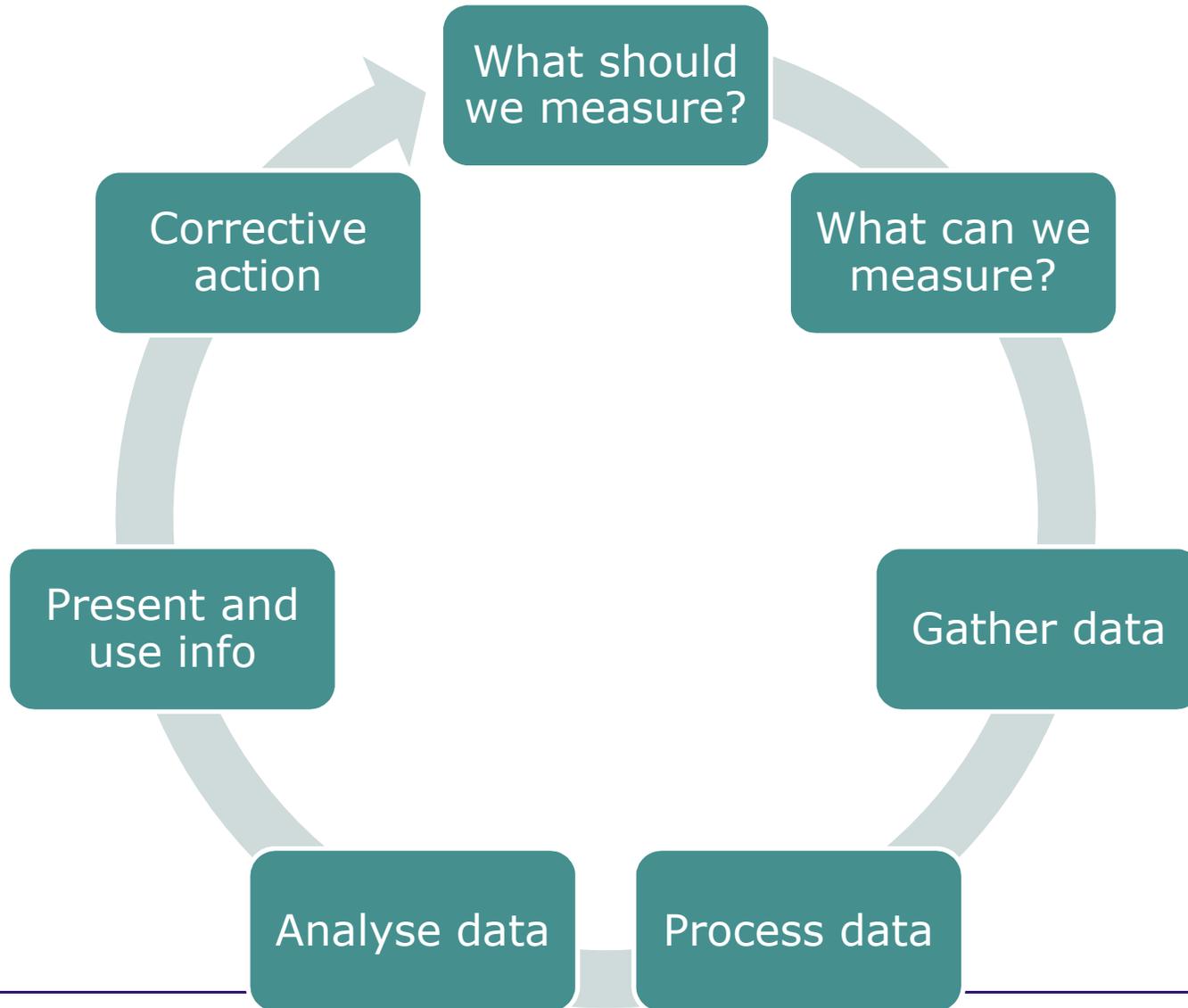
- ❖ **Focus on Process owners and Service Owners**
  - ❖ **Ensures that service management processes continue to support the business**
  - ❖ **Monitor and enhance Service Level Achievements**
  - ❖ **Plan – do –check – act (Deming)**
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# Service Measurement



- **Technology (components, MTBF etc)**
  - **Process (KPIs - Critical Success Factors)**
  - **Service (End-to end, e.g. Customer Satisfaction)**
  - **Why?**
    - Validation – Soundness of decisions
    - Direction – of future activities
    - Justify – provide factual evidence
    - Intervene – when changes or corrections are needed
-

# 7 Steps to Improvement



# ITIL Roles



- **Process Owner**
    - Ensures Fit for Purpose
  - **Process Manager**
    - Monitors and Reports on Process
  - **Service Owner**
    - Accountable for Delivery
  - **Service Manager**
    - Responsible for initiation, transition and maintenance. Lifecycle!
-

# More Roles



- ❖ **Business Relationship Manager**
  - ❖ **Service Asset & Configuration**
    - Service Asset Manager
    - Service Knowledge Manager
    - Configuration Manager
    - Configuration Analyst
    - Configuration Librarian
    - CMS tools administrator
-

# Functions and Processes



- **Process**

- Structured set of activities designed to accomplish a defined objective
- Inputs & Outputs
- Measurable
- e.g. ??

- **Function**

- Team or group of people and tools they use to carry out one or more processes or activities
  - Own practices and knowledge body
  - e.g. ??
-

# Further Learning



- **Do a 3-day course**
  - **We're running one here 30<sup>th</sup> Mar – 1<sup>st</sup> April**
  - **Many training companies run these courses**
  - **ITSMF provides the full books**
  - **Internet forums and Groups**
    - LinkedIn Group
    - FacebookGroup
    - Both quite active
  - **Video:**  
**<http://cf.ilxgroup.com/itilv3pres/main.html>**
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# Accreditation

- Today's seminar is not accredited
- 3 days gives the foundation level
- APM Group manages accreditation and certification
  - BCS/ISEB is accredited by APM

