# IT Service Management

Continual Service Improvement



## Continual Service Improvement

- Continual improvement of the effectiveness and efficiency of IT services
  - allowing them to meet the business requirements better
- Focus on the quality of activities and processes (behind IT services) to improve the quality of services
- CSI uses the P-D-C-A Cycle of Deming
  - This cycle prescribes a consolidation phase for each improvement …
  - … Continual vs Continuous
- The CSI improvement process has a seven step plan
  - Creating a Service Improvement Plan (SIP) is an SLM activity within the CSI scope



## Measuring and Analyzing

- Measuring and analyzing is crucial to CSI
  - it is possible to identify which services are profitable and which services can do better
- CSI mainly measures and monitors the following matters
  - **Process compliance** - Does the organization follow the new or modified service management processes and does it use the new tools?
  - **Quality** - Do the various process activities meet their goals?
  - **Performance** - How efficient is the process? What are the elapsed times?
  - **Business value of a process** - Does the process make a difference? Is it effective? How does the client rate the process?



## Objectives

- To measure and analyze Service Level Achievements by comparing them to the requirements in the Service Level Agreement (SLA)
- To recommend improvements in all phases of the lifecycle
- To introduce activities which will increase the quality, efficiency, effectiveness, and customer satisfaction of the services and the IT Service Management processes
- To operate more cost effective IT services without sacrificing customer satisfaction
- To use suitable quality management methods for improvement activities



## CSI and Organizational Change

- In order to make continual improvement a permanent part of the organizational culture, a change in mentality is often needed
- A lot of CSI programs fail because they do not (or cannot) achieve this cultural change
- John P. Kotter examined over a hundred companies and discovered eight crucial steps needed to successfully change an organization
  - Combined with good project management, these steps will considerably increase the chances of success



## Kotter's eight steps (1)

- **create a sense of urgency** - for instance, answer the question 'what if we do nothing?'
- **form a leading coalition** - a single pioneer cannot change an entire organization; a small key team is needed with the necessary authority and resources; this team can be expanded as the support grows
- **create a vision** - a good vision formulates the goal and the purpose of CSI, provides direction, motivates, co-ordinates and formulates goals for the senior management; make these goals SMART: Specific, Measurable, Achievable/Appropriate, Realistic/Relevant and Timely/Timebound; without a vision, a CSI program will soon become a repository of projects which do not have obvious benefits for the organization; tailor the vision to the client's requirements

## Kotter's eight steps (2)

- **communicate the vision** - each stakeholder must know what the vision is, what is its use for him, and why CSI is needed; to achieve this, put together a communication plan, and demonstrate by example
- **empower others to act on the vision** - remove obstacles, give direction by setting clear goals and supply people with the proper resources such as tools and training; create security and self confidence; only then will they be able to take responsibility for their part in CSI
- **plan for and create quick wins** - evaluate per service or process what can be improved rapidly; plan this, execute it and communicate it in order to increase support



## Kotter's eight steps (3)

- **consolidate improvements and create more change** - quick wins convince and motivate; medium term successes offer confidence in the organization's own improvement capabilities and foresee a set of standard procedures; but in the long run improvement can only be considered a success if people and processes are continually improving themselves
- **institutionalize the changes**:
  - hire personnel with experience in best practices in the field of IT management
  - from day one hand out work instructions
  - clarify what the procedures are
  - train staff in IT management
  - match the goals and reports to changing demands
  - define clear action points in the minutes
  - integrate new IT solutions and development projects in existing processes

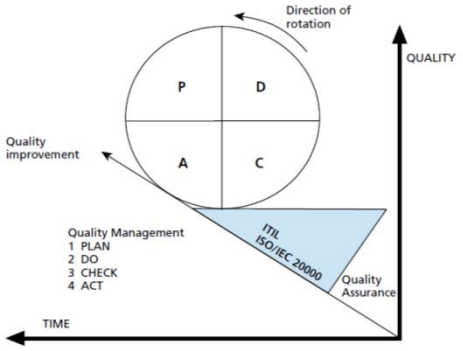


## The Plan-Do-Check-Act cycle

- A '*big bang*' approach does not usually result in a successful improvement program …
- P-D-C-A cycle: a step-by-step improvement approach
  - **Plan** - what needs to happen, who will do what and how?
  - **Do** - execute the planned activities
  - **Check** - check whether the activities yield the desired result
  - **Act** - adjust the plan in accordance to the checks
- CSI uses the P-D-C-A Cycle in two areas:
  - implementation of CSI
  - continual improvement of services and processes

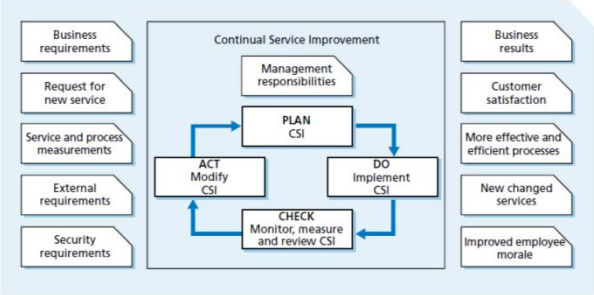


## The Plan-Do-Check-Act cycle






## P-D-C-A Cycle for the implementation of CSI






## Metrics, KPIs, and CSFs

- A metric measures the results of a process or activity by determining whether a certain variable meets its target
  - For instance, a metric measures whether the required number of incidents are resolved within one hour
- Types of metrics needed for CSI
  - **technology metrics** - measure the performance and availability of components and applications
  - **process metrics** - measure the performance of service management processes; they stem from Key Performance Indicators (KPIs), which in turn stem from Critical Success Factors (CSFs)
  - **service metrics** - the results of the end service; these are measured using component metrics

## Metrics, KPIs, and CSFs

- A metric stems from the goal set by an organization
  - If the business views IT as a *cost center* then it will probably want to decrease the costs
  - If, however, it sees IT as the enabler of the company, then the goal will probably be to develop flexible services which will decrease his *time-to-market*
- **CSFs** are essential to achieving the business mission
- **KPIs** following on from these CSFs determine the quality, performance, value and process compliance
  - KPIs can either be qualitative (such as customer satisfaction), or quantitative (such as costs of a printer incident)
  - At the start of the improvement program two to three KPIs per CSF will already supply a great deal of information



## Data, information, knowledge and wisdom (DIKW)

- Metrics supply quantitative **data**
  - The service desk registers 12,000 incidents each month
- CSI transforms this data into qualitative **information**
  - 18% of the incidents reported are related to the organization's email facility
- By combining information with experience, context, interpretation, and reflection it becomes **knowledge**
  - since we know that the organization is a web store, we can determine the impact of incidents concerning the email facility
- What it comes down to in CSI is **wisdom** (being able to make the correct assessments and decisions)
  - because we know the impact of the email incidents on the client, we can decide to focus on this service because we want to improve our customer service



## Governance

- **Governance** drives organizations and controls them
  - ***Corporate governance*** provides a good, honest, transparent and responsible management of an organization
  - ***Business governance*** results in good company performances
  - Together they are known as ***enterprise governance***
- ***IT governance*** is also part of enterprise governance
  - Complying with the new rules and constantly performing better at a lower cost (business governance) are both part of IT governance
- IT suppliers must offer their services from a strategic rather than a tactical perspective
  - IT departments should not only focus on technology



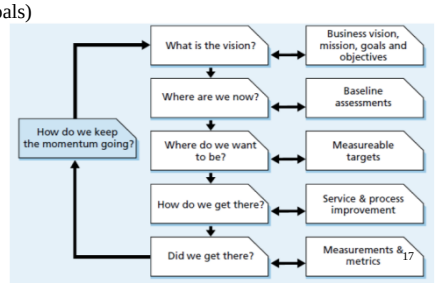
## CSI policies and procedures

- CSI policies capture agreements about measuring, reporting, service levels, CSFs, KPIs and evaluations
  - These must be known to the whole organization.
- Most organizations assess the process results each month
  - It is wise to evaluate new services more often
- An IT organization should implement the following CSI policies
  - all improvement initiatives must go through the change management process
  - all function groups are responsible for CSI activities
  - CSI roles and responsibilities are recorded and announced



## Setting Directions

- Without a vision about the direction (and goals) of the improvement, an improvement has only a limited value
- The organization must continually assess its current improvement course (CSI goals)






## Phases of the continual cycle (1)

- Determine the vision
  - IT gets an insight into the goals of its business, and together with the business formulates a vision to tune the IT strategy to the business strategy;
  - together they formulate a mission, goals and objectives analyze measurement data and compare them to goals of SLA
- Record the current situation
  - record the starting point (baseline) of the client, organization, people, process and technology
- Determine measurable targets
  - set priorities together with the client based on the vision: what do we improve first, how extensive must the improvement be and when should it be finished?

## Phases of the continual cycle (2)

- Plan - draw up a detailed service improvement plan (SIP) including actions to achieve the desired situation
- Check - measure whether the objectives have been achieved, and check whether the processes are complied with
- Assure - engrain the changes in order to maintain them
- *Announce this plan to the whole organization in order to create a consciousness, understanding, enthusiasm and support*
- *Create a dialogue with the organization and regularly communicate and report on the actual achievements*



## Processes

- The CSI improvement process describes how you should measure and report
  - What should you measure?
  - What can you measure?
  - Gather data (measure)
  - Process data
  - Analyze data
  - Present and use the information
  - Implement corrective action
- Service Reporting Process
  - Responsible for the generation and supply of reports about the results achieved and the developments in service levels



## Organization

- Roles and responsibilities
  - Permanent production roles such as service manager, service owner, process owner and analysts
  - Temporary project roles such as project managers and project team members



## Key activities and the roles

| Key activity | Key role |
|---|---|
| Gather data from the measurement of service results and service management processes and compare these to the starting point (baseline), goals, SLAs and benchmarks; analyze trends | Service manager, service owner, IT process owner |
| Set targets for efficiency improvement and cost effectiveness throughout the entire Service Lifecycle | Service manager |
| Set targets for service improvements and use of resources | Service manager, service owner, business process owner |
| Consider new business and security requirements | Service manager, business process owner |
| Create an SIP and implement improvements | Service manager, service owner, process owner |
| Enable personnel to propose improvements | Service manager |
| Measure, report and communicate about improvement initiatives | Service manager |
| Revise policy, processes, procedures and plans if needed | Service manager |
| Ensure that all approved actions are completed and that they achieve the desired result | Service manager, business manager, IT process owner, business process owner |



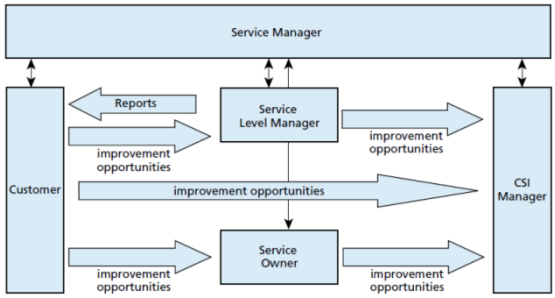
## Main Roles

- Service manager

  co-ordinates the development, introduction and evaluation of one or more products or services
- CSI manager
  - manages the measuring, analysis, investigating and reporting of trends and initiates service improvement activities
- Service owner
  - the central point of contact for a specific service
- Process owner
  - ensures that the organization follows a process



## Cooperation among roles



## Other Roles

- Service knowledge manager
  - designs and maintains a knowledge management strategy and implements this
- Reporting analyst
  - evaluates and analyzes data, and spots trends; often co-operates with SLM roles (see Service Design)
- Communication role
  - designs a communication strategy for CSI



## Methods and techniques

- Methods and techniques to check whether planned improvements actually produce measurable improvements
  - **Implementation review** – based on questionnaires to determine whether the improvements produce the desired effects
  - **Assessment** - comparing the performance of a process against a performance standard
  - **Benchmarks** - comparing against best practices
  - **Balanced Scorecard (BSC)** - measures selected based on a set of short, medium, and long term "strategic objectives"
  - **Gap Analysis** - naturally arises from assessments and benchmarks; it determines where the organization is now and the size of the gap with where it wants to be
  - **SWOT-analysis** - looks at the Strengths, Weaknesses, Opportunities and Threats of an organization (component) or project
  - **Rummler-Brache swim-lane diagram** - representing the relationships between processes and organizations or departments



## Tools

- Tools must monitor and analyze the most important components of a service, in a manner that supports the CSI Improvement Process
  - Selection of tools also forms part of the question ‘where do we want to be?
- Examples of tools to be used for CSI
  - IT Service Management packages; Event management; System and network management; Automated incident and problem solving; ***Knowledge management***; Service Request processing (Service Catalogue and workflow); Performance management; Application and service performance monitoring; ***Statistical analysis instruments***; Software version management/software configuration management; Software test management; Security management; Project and portfolio management; Financial management; ***Business intelligence/reporting***