

# Process 4.1 – Develop Project Charter

## Def.:

- Developing a document that formally authorizes
  - the existence of the project
  - the Project Manager to use organizational resources

## Main Outputs:

- Project Charter
- Assumption Log

## Main Tools & Techniques:

- Expert Judgement
- Data Gathering (Brainstorming, Focus groups)
- Interpersonal and Team Skills (Conflict Management, Facilitation)

## Main Inputs:

- Business documents (Business Case, Benefits Management Plan)
- Agreements

## Key benefits:

- Direct link between the project and strategic objectives of the organization
- Creates formal record of the project

## Main concepts:

- Project charter establishes a partnership. But with external partners a contract is preferred, however, the charter can be used internally.
- PM is assigned as early as feasible, preferably when the project charter is being developed and ALWAYS prior to the start of the planning.
- Project charter can be developed by the sponsor or the project manager in collaboration with the organization.
- Charter provides the PM with the authority to plan, execute and control the project.
- Project initiator should be at the org. level to procure funding and commit resources.
- Charter is not considered a contract as there is no consideration such as money.

## Process 6.4 – Estimate Activity Duration

### Def.:

- Estimating the numbers of work periods needed to complete individual activities

### Main Outputs:

- Duration estimates
- Basis of estimates
- Document Updates (Act. attributes)

### Main Tools & Techniques:

- Expert Judgement
- Estimating (analogous, parametric, three-point, bottom-up)
- Data Analysis (alternatives anal., reserves anal.)
- Decision Making

### Main Inputs:

- Project Management Plan (Schedule MP, Scope BL)
- Documents (Act. Attributes, act. List, milestone list, a lot of resource-related documents, risk register)

### Key benefits:

- Provides duration each activity will take to complete

### Main concepts:

- Law of diminishing returns: When adding one factor, a point will be reached where adding more of that factor yields progressively diminishing increases
- Number of resources: Resource increase not always results in time reduction by the same factor. Reason: knowledge transfer, learning curve, more coord.
- Advances in technology: can shorten durations significantly
- Motivation of staff: Student syndrome (Procrastination, begin work only on the last day) vs. Parkinson's Law (extend work duration to span allowed)<sup>?</sup>

## Process 8.2 – Manage Quality

### Def.:

- Translating quality management plan into executable quality measures

### Main Outputs:

- Quality reports, Test and evaluation documents, Change requests

### Main Tools & Techniques:

- Data Gathering (Checklists), Data Analysis (alternatives anal., document anal., process anal., root cause anal.)
- Decision Making (MCDA), Data representation (Affinity Diagrams, Cause-and-effect diagrams, Flowcharts, Histograms, Matrix Diagrams, Scatter diagrams)
- Audits, Design for X, Problem Solving, Quality improvement methods

### Main Inputs:

- Project Charter, Project Management Plan (Requirements MP, Risk MP, Stakeholder EP), Documents (Req. Doc., RTM, Risk reg., Stakeholder reg.)

### Key benefits:

- Increases probability of meeting quality objectives
- Finds ineffective processes and causes of poor quality

### Main concepts:

- Sometimes called Quality Assurance. But: Manage Quality has a broader definition: Includes quality assurance, product design and process improvement
- Focus is on using processes effectively in the project
- Following standards to assure stakeholders that the project meets expectations and requirements
- Manage quality work falls under conformance work in the cost of quality framework
- Systematic processes help to:
  - design a mature product by implementing design guidelines
  - build confidence that product meets requirements by quality audits and failure analysis
  - confirm that quality processes meet quality objectives
  - improve efficiency and effectiveness of processes
- Roles and responsibility in managing quality
  - predictive approach: specific team members
  - agile approach: everyone

## **Process 8.3 – Control Quality**

### Def.:

- Monitoring and controlling results of executing quality management activities
- Asses performance and assess if the project outcomes are correct & meet requirements

### Main Outputs:

- Quality control measurements, Verified deliverables, Work performance information, Change requests

### Main Tools & Techniques:

- Data Gathering (Checklists, check sheets, statistical sampling, questionnaires & surveys)
- Data Analysis (Performance reviews, root cause anal.)
- Inspection
- Testing / Product evaluations
- Data representation (Cause-and-effect diagrams, control charts, histograms, scatter diagrams)

### Main Inputs:

- Project Management Plan (Quality MP), Documents (LLR, Quality metrics, Test and evaluation documents), Approved change requests, Deliverables, Work performance data

### Key benefits:

- Verifies that project deliverables and work meet requirements

### Main concepts:

- Measure compliance to specifications and fitness for use of a product
- Performed throughout the project to prove that acceptance criteria are met
- Agile: Performed by all team members throughout the project
- Waterfall: Performed by specific teams towards the end of the project or phase

# **Process 10.2 – Manage Communications**

## Def.:

- Ensuring timely and appropriate collection, creation, distribution, storage, retrieval, management, monitoring and disposition of project information

## Main Outputs:

- Project Communications
- Project Management Plan Updates (Communications MP, Stakeholder EP)

## Main Tools & Techniques:

- Communication technology
- Communication methods
- Communication skills (Communication competence, feedback, nonverbal, presentations)
- Project Management Information Systems
- Project Reporting
- Interpersonal and Team Skills (Active listening, conflict management, cultural awareness, meeting management, networking, political awareness)

## Main Inputs:

- Project Management Plan (Resource MP, Communication MP, Stakeholder Engagement Plan), Documents (Change Log, Issue Log), Work performance reports

## Key benefits:

- Enables efficient and effective information flow between team and stakeholders

## Main concepts:

- Make sure that the information being communicated to stakeholders has been appropriately generated, formatted and received by audience:
  - Sender-receiver models: Interaction through feedback loops
  - Choice of media: Written/oral, formal/informal, push/pull
  - Writing style: active/passive voice, sentence structure, choice of words
  - Meeting mgmt: Prepare agenda, invite essential participants, ensure their attendance, deal with conflicts
  - Presentation: awareness of body language and visual aids
  - Facilitation: build consensus and overcome obstacles
  - Active listening: acknowledging, clarifying, confirming

## Process 11.2 – Identify Risks

### Def.:

- Identifying sources of individual project risks and sources of overall project risks
- + documenting their characteristics

### Main Outputs:

- Risk register
- Risk report

### Main Tools & Techniques:

- Expert Judgement
- Data gathering (brainstorming, checklists, interviews)
- Data analysis (root-cause anal., assumption and constraint anal., SWOT anal., document anal.)
- Interpersonal and team skills (facilitation)

### Main Inputs:

- Project Management Plan (Req., Schedule, Cost, Quality, Resource, Risk MP, Scope, Schedule, Cost BL), Documents (a lot), Agreements, Procurement docu

### Key benefits:

- Documentation of existing risks (individual and overall)

### Main concepts:

- Individual and Overall project risks
- Participants in identification activities: PM, PM team, risk specialist, customer, SME, end user, other PMs, stakeholder, operation mgr
- Involvement of project team is particularly important so that they develop a sense of ownership and responsibility
- In description of risks: consistent format is helpful to prevent ambiguity and unclearness
- Risk owners for individual risks may be nominated and will be confirmed in 11.3 Perform Qualitative Risk Analysis
- Preliminary risk responses may be identified and will be confirmed in 11.5 Plan Risk Responses
- This process is iterative. Frequency of iteration is defined by the risk mgmt plan.

## **Process 13.3 – Manage stakeholder engagement**

### **Def.:**

- Communicating and working with stakeholders to meet their needs and expectations, address issues and foster stakeholder involvement

### **Main Outputs:**

- Change Requests
- Project Management Plan Updates (Communications MP, Stakeholder EP)
- Project Doc. Updates (Change Log, issues log)

### **Main Tools & Techniques:**

- Expert Judgement
- Communication Skills (Feedback)
- Interpersonal & Team Skills (Conflict management, cultural awareness, negotiation, observation / conversation, political awareness)
- Ground rules

### **Main Inputs:**

- Project Management Plan (Communication, Risk MP, Stakeholder EP)
- Project Documents (Change log, issue log, LLR, stakeholder re.)

### **Key benefits:**

- Increase support and minimize resistance from stakeholders

### **Main concepts:**

- Engaging stakeholders to obtain, maintain, confirm their commitment
- Manage expectations through negotiation and communication
- Address risks and concerns and anticipate future issues
- Clarify and resolve issues