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Selected Topics in Project Management
Scope Management

Dr Marc Conrad

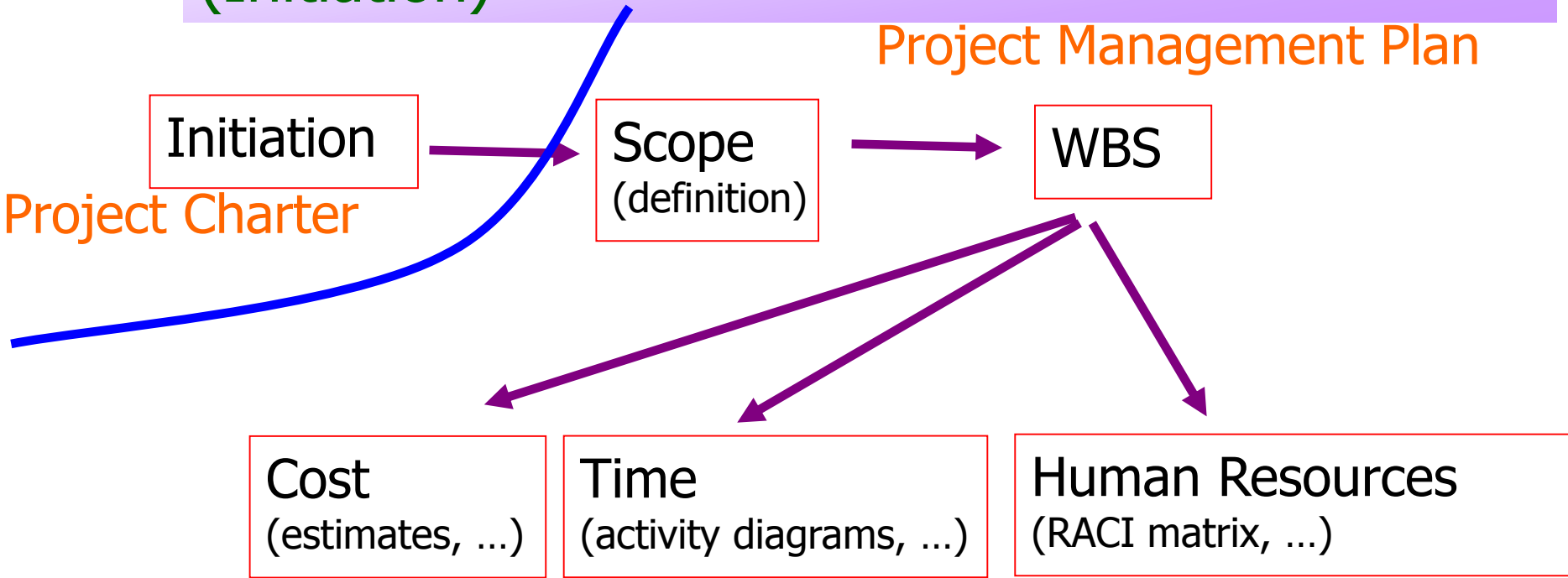
<http://perisic.com/stpm>

PMBOK® Processes in Scope Management

- Plan Scope Management
 - Collect Requirements
 - Define Scope
 - Create Work Breakdown Structure
 - Discussion: WBS, PBS, SBS.
 - Validate Scope
 - Control Scope
- } Discussion: Scope Creep

Project Management Processes (Initiation)

Project Management Plan



- Also to consider: Quality, Risk, Communication, Procurement, Integration (PMBOK® knowledge areas)

The Work Breakdown Structure (WBS)

- Used as a basis for a number of processes in particular to produce the subsidiary plans of the Project Management Plan.
- The WBS is a **deliverable-oriented hierarchy** of decomposed project components that organises and defines the total scope of the project. The WBS is a representation of the detailed project scope statement that specifies the work to be accomplished by the project.
- The elements comprising the WBS assist the stakeholders in viewing the end product of the project.
- The work at the lowest-level WBS component is estimated, scheduled, and tracked.

Example WBS

- Redecorate Room
 - Prepare materials
 - Buy paint
 - Buy a ladder
 - Buy brushes/rollers
 - Buy wallpaper remover
 - Prepare room
 - Remove old wallpaper
 - Remove detachable decorations
 - Cover floor with old newspapers
 - Cover electrical outlets/switches with tape
 - Cover furniture with sheets
 - Paint the room
 - Clean up the room
 - Dispose or store left over paint
 - Clean brushes/rollers
 - Dispose of old newspapers
 - Remove covers

- Focus on the product to be delivered and not on the work to do.
- Features prominently in PRINCE2® “product-based” approach.
- Redecorated Room
 - Removed old wallpaper
 - Clean room
 - Cover for furniture
 - Cover for electrical switches
 - Newspapers to cover floor.
 - Paint
 - Paint on wall
 - Leftover paint
 - Management products
 - Ladder
 - Brushes and rollers

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“Scope Breakdown Structure” (Max Wideman’s approach)

- Geographically discrete components
- Time based phases and stages
- Intermediate or final major deliverables
- Discrete structural, process, system or device components
- Deliverable elements that can be associated with distinctive types of people-skills or resources
- **After that, break down the work as in the WBS**

Recommended
Reading!

<http://www.maxwideman.com/musings/wbswar.htm>



Scope Breakdown Structure

(Max Wideman redecorates a room)

- Redecorated Room
 - Painted wall
 - Buy paint
 - Buy ladder
 - Buy brushes or rollers
 - Paint room
 - New curtains
 - ...
- Content Family
 - A clean room
 - Cover floor with old newspapers
 - Cover electrical outlets/switches with tape
 - Cover furniture with sheets
 - Dinner in a restaurant
 - ...
 - Decision on colours
 - ...

- Note the noun phrases on the top levels (scope breakdown) and the activities on the lower levels!

Scope Creep

One of the main reasons for projects to **fail**.

Scope Creep – What is it?

- Scope creep is defined as adding features and functionality (project scope) without addressing the effects on time, costs, and resources, or without customer approval. (PMBOK)
- Other definitions:
- “Scope creep is the piling up of small changes that by themselves are manageable, but in aggregate are significant.”
 - <http://management.about.com/cs/projectmanagement/a/PM101.htm>
- “Scope creep refers to the change in a project's scope after the project work has started. Typically, the scope expands by the addition of new features to an already approved feature list.”
 - <http://www.mariosalexandrou.com/definition/scope-creep.asp>

Scope Creep – Possible reasons

<http://kuntalthakore.wordpress.com/2009/11/05/scope-creep-how-should-project-manager-deal-with-it>

- Poor implementation of change control.
- Incomplete gathering of requirements before project execution begins.
- Insufficient involvement of critical stakeholders (including customer)
- Lack of support from executive sponsor and enforcement power in project manager

Central to avoid Scope Creep, is the process "Validate Scope"

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5.5 Validate Scope

Input:

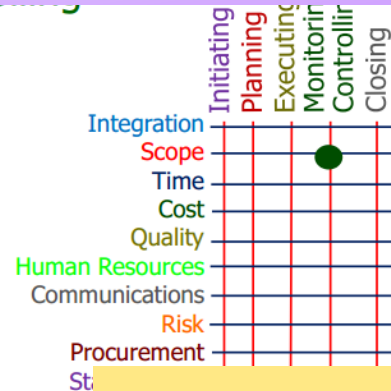
- Project management plan
- Requirements documentation
- Requirements traceability matrix
- Verified deliverables
- Work performance data

Tools & Techniques

- Inspection
- Group decision-making techniques

Output:

- Accepted deliverables
- Change requests
- Work performance information
- Project document updates



Inspection is an essential part of Project Management

Note the difference between 'scope creep' and 'scope change'

not ok

ok

How to avoid Scope Creep

- Eight Tips on How to Manage Feature Creep
 - <http://sixrevisions.com/project-management/eight-tips-on-how-to-manage-feature-creep/>
- Ten Ways to Stop Scope Creep in Your Web Design Project
 - <http://www.clecompte.com/stop-scope-creep-web-design-project>
- Illustrations of Scope Creep
 - <http://images.google.co.uk/images?q=scope%20creep>

Summary

- Scope Management Processes
- Importance to break down stuff:
 - WBS, PBS, SBS
- Scope Creep