

# Software Project Management

Lesson 2 – Strategy Phase

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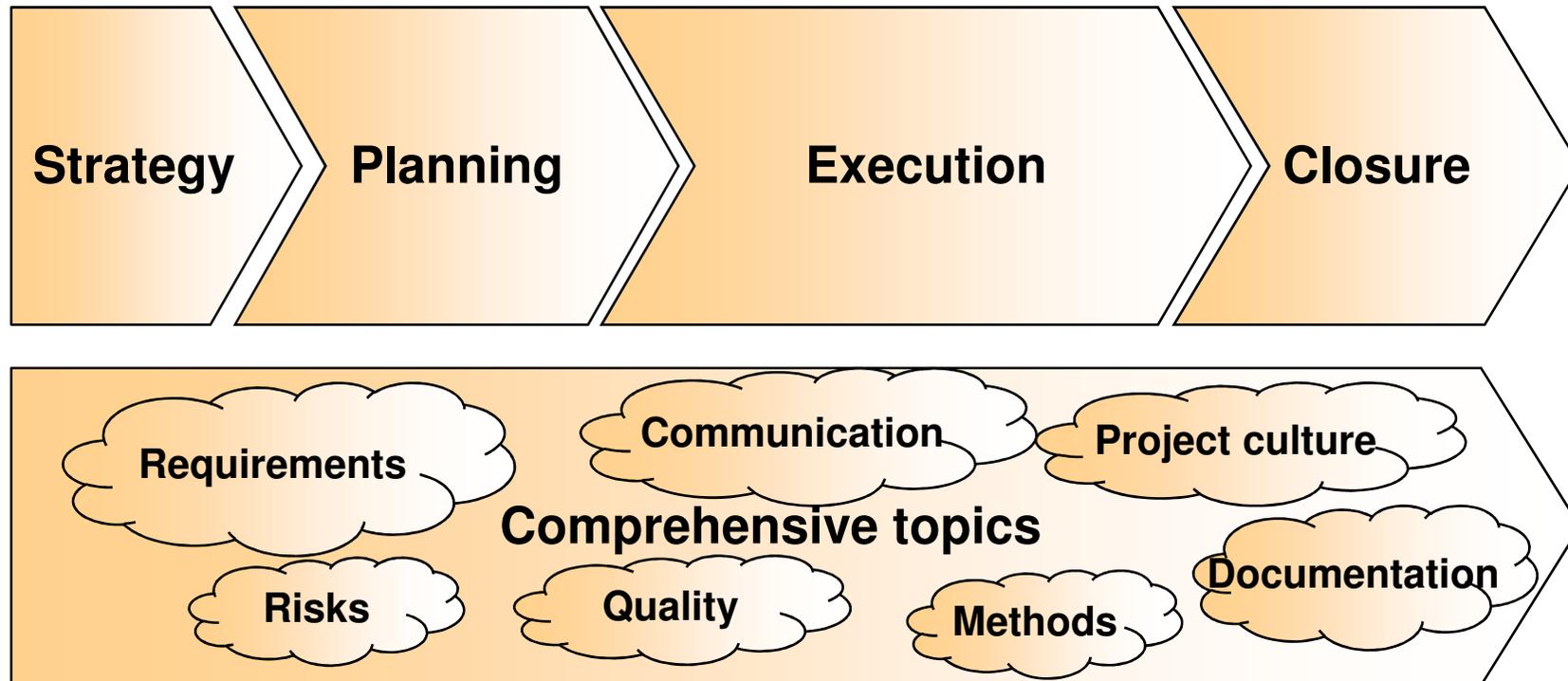




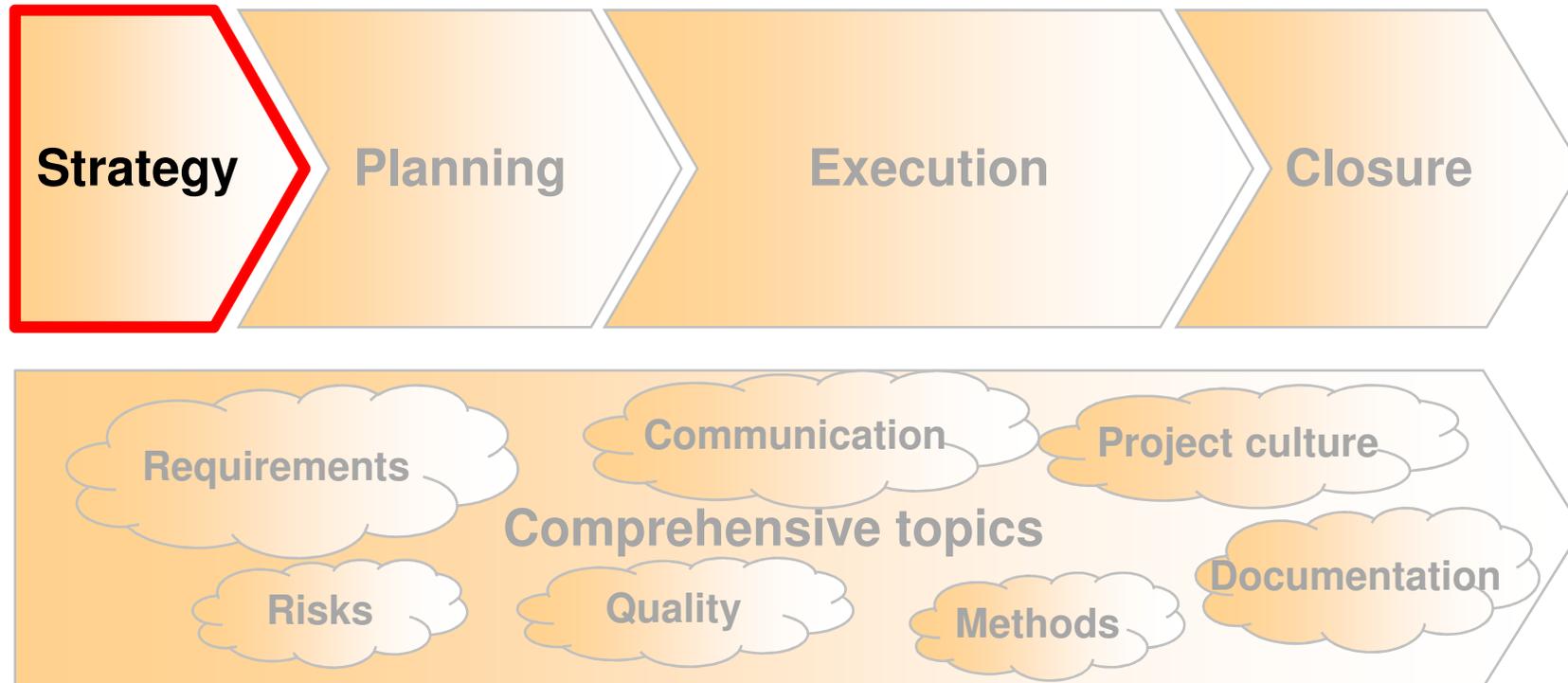
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# Introduction



# Introduction





# Goal / objective

- Project stage: Strategy Phase  
Synonyms: Conception stage, initial stage
- Goal of the strategy phase is to achieve a project order
- Resulting documents:
  - Project order
  - Requirements specification document
  - Technical specification document

# Situation analysis



- What is the situation?
  - Understanding the subject
- Why are we doing the project?
  - The larger the project the more important
  - Identification of actual problem
  - Trying to find several solutions
    - The best solution should be realized
- Involve related people  
Initialization of a workshop, interviews,  
contacting experts, research and investigation



# Situation analysis

- Typically a project should solve an issue. Following question should be answered
  - Which information, which data are available?  
What are the facts?
  - Which opinions do exist?
  - Which problems are known already?  
Which ideas and which requirements are available?
  - What are the causes for the given issue?
  - Which impact resolves out of the issue?
  - Which tasks, processes, and methods are related?
  - What are the priorities?

# Environment analysis



- Synonyms: Project environment analysis, stakeholder analysis
- Goal: Identifying of all involved people, who (could) play a role in the project, and involving them
- Ideas
  - Who is confronted with the project, who is affected, who has to be integrated how?
  - Are there projects working on the same topic?
  - Are there projects needing the same resources?
  - Which systems, processes are involved?
  - Political situation: Are there sponsors, competitors?

# Environment analysis

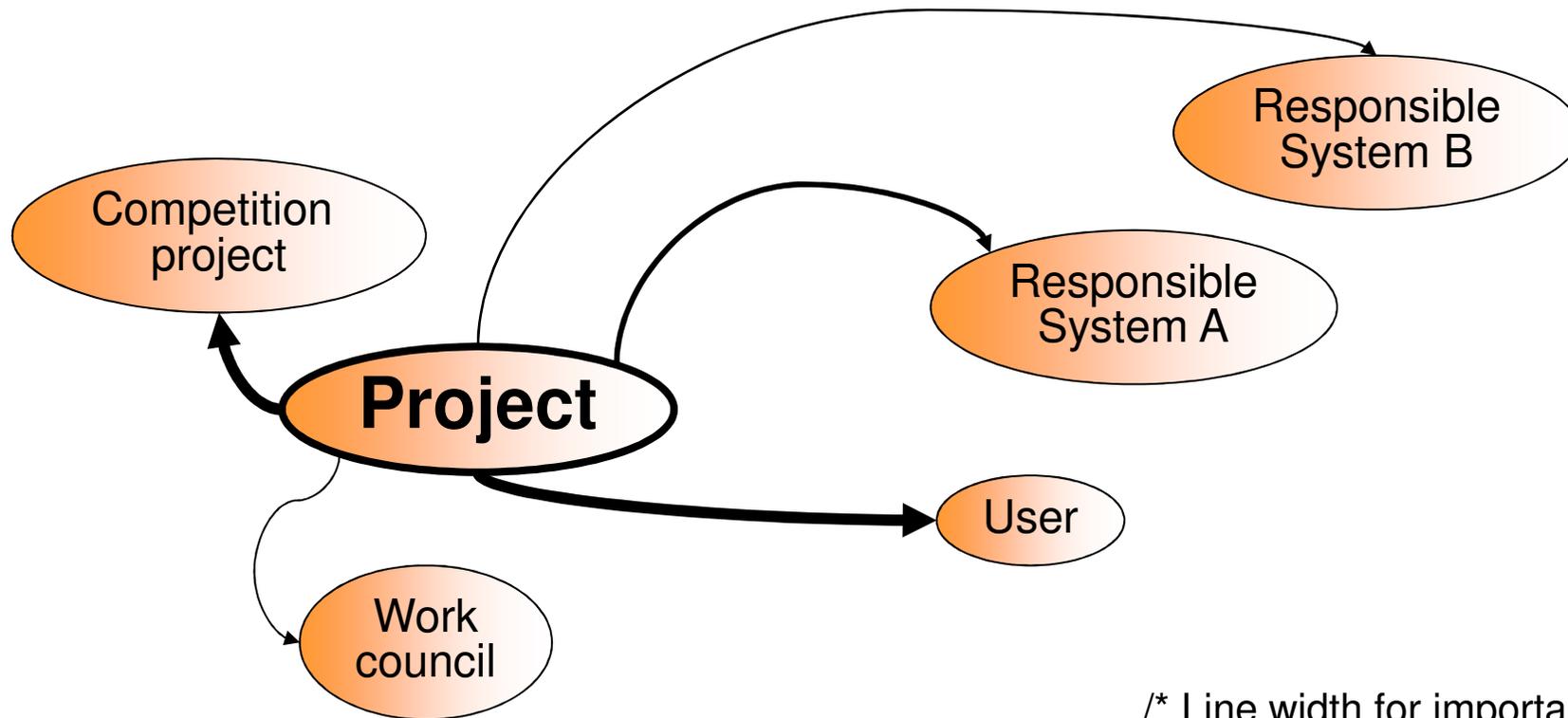


- Recommended methods
  - Mind map  
to get an overview
  - RACI-Matrix (Responsibility matrix)
    - **R**esponsible, i. e. disciplinary responsible
    - **A**ccountable, i. e. responsible concerning the cost center point of view
    - **C**onsulted, i. e. giving specialist advice
    - **I**nformed, i. e. needs information



# Environment analysis

- Mind Map, example



/\* Line width for importance \*/

# Environment analysis



- RACI, example

Stakeholder	Possible role in project	Attitude concerning project	Possible influence / power	Measures / strategies
Director	A	positive	Very high	<ul style="list-style-type: none"> <li>• Regular communication once a week</li> </ul>
Project manager	R	positive	High	
Customer	I	negative	High	<ul style="list-style-type: none"> <li>• Regular meeting 2 times a week, to be considered in Beta testing</li> </ul>
User	C	negative	Low	<ul style="list-style-type: none"> <li>• User workshop with demo</li> </ul>
Work council	I	positive	Medium	<ul style="list-style-type: none"> <li>• Execution of an information event</li> </ul>



# Project goals

- Project goals  
Synonym: Project charter
- DIN 69901 defines the project goal as "measurable result under defined constraints of a project" [DIN]
- The complete goal descriptions could be covered by the questions:
  - What?
  - When?
  - How much?
  - Where?
- Goals are desires!
- A strategy describes the path to the goal



# Project goals

- Project goals are necessary
  - control the project
  - measure the project result
- **What** would we like to achieve?
  - Scope
  - Main goal
  - Sub goals
  - Non-goals
  - Constraints



# Project goals

- How do I know the status of my project?
  - Making goals measurable
  - Description of solution concept (first draft)
  - Planning of review dates
- How could I make project goals measurable?
  - Prioritization
  - Describing, when I reached my goal
  - Operationalization of the goals
    - Performance goals
    - Time target
    - Cost target

# Project goals



Description	Basic plan	Iteration 1	Iteration 2	Iteration 3
Main goals				
Sub goals				
Non-goals				
Constraints				

# Project order



- Project order  
Synonyms: Project assignment, project contract, project definition, project scope
- DIN 69905 defines „project order“ as „Agreement about deliveries and services of the parties to a contract.“ [DIN]
- Typically we talk about a mandatory contract document, where a signing contracting body (customer) instructs a contractor to perform the agreed services and commits to pay a corresponding commission



# Project order

- Clarify everything and write it down
  - The project order should be confirmed in written form
  - The project order is the formal start of a project  
From this time on the project life cycle could be traced
- Hint  
During this stage you should try to find high ranked sponsors and to inform them regularly

# Project order

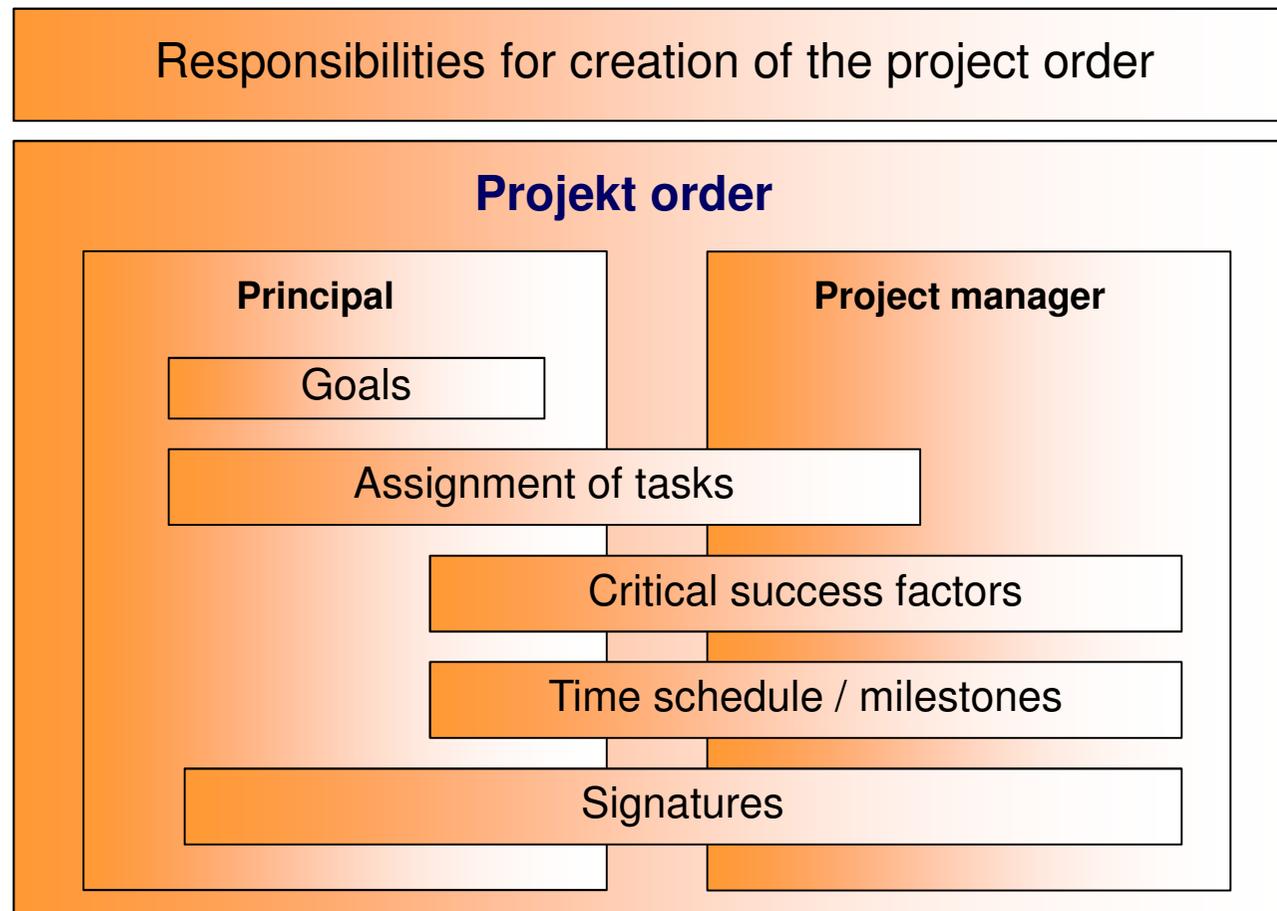


- Typical content:
  - People involved, especially principal and contractor
  - Initial position
  - Goal
  - Assignment of tasks
  - Expected project results
  - Critical success factors
  - Costs and benefits
  - Time schedule and milestones
  - Organization
  - Signature



# Project order

- Overview





# Project order

- Example

Project order	
Project name:	<Name of project>
Project no.	<Number of project>
Principal:	<Name of principal>
Project board	
Chairman:	<Name of chair>
	<NN1>
	<NN2>
Project team	
Project manager:	<Name of project manager>
Stand-in:	<Name stand-in of project manager>
	<NN1>
	<NN2>
	<NN3>
Project goals	
Main goals	<Goal1>
	<Goal2>

# Requirements specification document



- Requirements specification document  
Synonyms: Statement of Work, terms of reference, product requirements document
- DIN 69905: The requirement specification describes the “requirements by the customer concerning the deliveries and services of a contractor in a contract” [DIN].
- A requirement specification contents the expectations and desires concerning the planned product.
- It describes the requirements and covers the deliveries and services of a contractor.

# Requirements specification document



- The principal should write the requirement specification, at least he should be responsible.
- It is the basis to ask contractors for "Request for proposals"
- **What** should be created and delivered?
- Contents
  - Specification of the product to be created
  - Product requirements
  - General conditions for the product and requested services
  - Contracted conditions
  - Contractor requirements

# Technical specification document



- Technical specification document  
Synonyms: Target specification, to-be-concept, feature specification, design specification
- Following DIN 69905: The technical specification covers "the developed realization plan by the contractor based on the requirements specification document by the customer."
- The target specification is the contracted, detailed description of a service to be fulfilled

# Technical specification document



- The technical specification document contains the "plan how to realize the requirements", developed by the contractor.
- It describes how the "functional specification of the principal should be implemented"
- How should it be created and delivered?
- Depending on the project a collaborated target specification could contain additionally the complete project plan, including time schedule and resource plans.  
⇒ *It is then realized at the end of the planning phase*

# Technical specification document

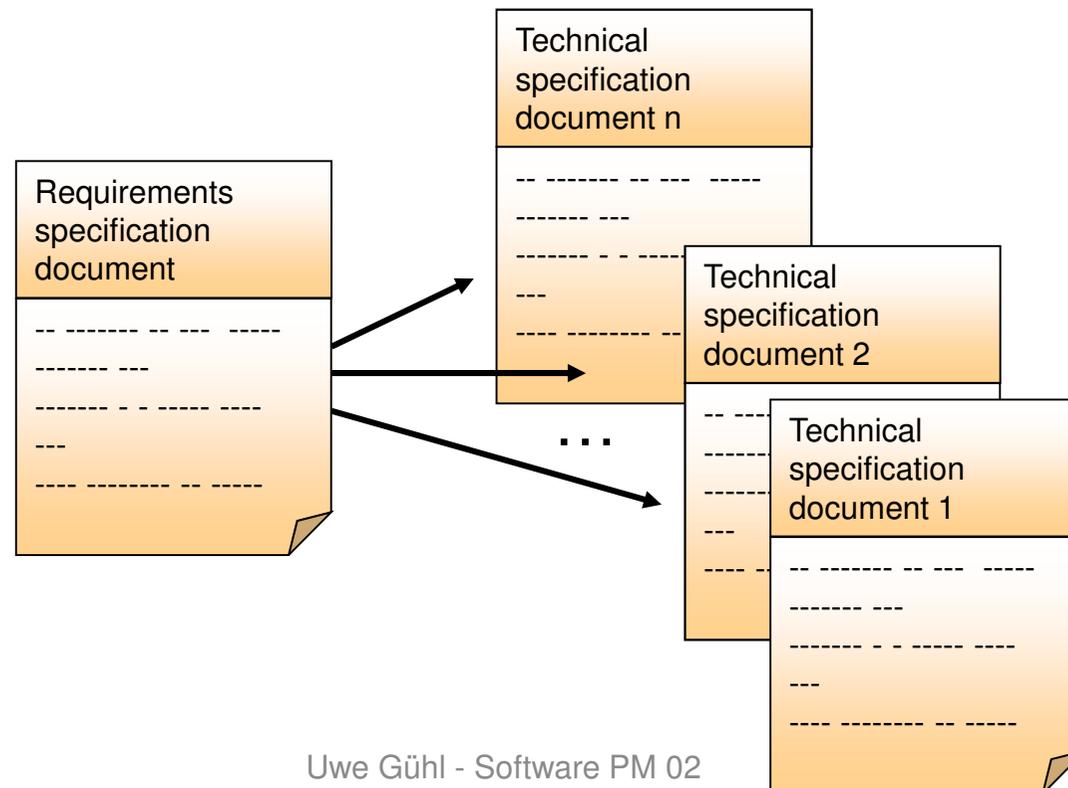


- Contents
  - Detailed contents of the functional specification
  - Definitions concerning the realization
- Differentiation
  - The functional specification document contents mainly the specification of the product.
  - The technical specification describes, how the contractor plans to performs

# Technical specification document



- It's possible that out of the requirements specification document many technical specification documents result, e.g. if there are competitors





# Summary

- Do a situation analysis to understand why a project is required
- An environmental analysis
  - helps in understanding the needs and concerns of people involved
  - is basic for stakeholder management
- A project order is the fundament of a project
  - Who is the principal, who is the contractor?
  - Project contract with agreement on project goals:  
Measurability, non-goals, constraints to be considered
  - First drafts for
    - Project structure / project organization
    - Resource plan and time schedule
    - Communication concept
    - Project team



# Summary

- Project goals to
  - be able to control the project and
  - measure the project output
- Requirement specification document:  
What should be created and delivered?  
... by customer
- Technical specification document:  
How should it be created and delivered?  
... by contractor



# Sources

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